

PERSONAL

Advisers in English have, we learn, (TES, March 2) expressed grave doubts about graded tests in English. Now I am greatly in favour of graded practical tests in all school subjects (to run alongside other, more theoretical, examinations) to be taken by any student, whatever his age or ability, when he is ready. And so I want to be certain that the advisers are right in their condemnation of the idea as applied to English.

That such tests are successful in foreign languages, they say, does not entail that they would be successful in English. Indeed, they go so far as to pronounce them "very dangerous". The reason they give is that a child's knowledge of English is organic. It does not grow by "putting together" graded segments of language which are pre-formulated and measurable.

In the same issue of *TES* there is a letter from Mr Steve Giles who remarks very sensibly (though in a quite different connexion) that the purpose of teaching foreign languages at school must be that people should be able to communicate. If this is the purpose of teaching, it must also be the purpose of testing. And I cannot help thinking that what is true of other languages must also be true of English.

when this is the student's native tongue. If it is possible to devise tests for the ability to communicate in French, German or Russian, then it must be possible, if more difficult, to devise such tests for English. The chief feature of the tests would be that they would be mostly oral. There have been examinations in spoken English for years, but I don't think they have concentrated entirely on communication, still less on the related concept, conversation or two-way communication. This concept effectively rules out the view of language as a set of building blocks, or prepackaged lumps such as the English advisers believe is implied by language tests.

It is difficult, as a matter of fact, to understand why they should believe this. Is it because they think of foreign languages as largely a matter of vocabulary? On such a view, the student learns a lot of words, and then uses them. If he uses them correctly he will make himself understood; otherwise not. Now there is some truth in this view of language-learning. At least a test of whether a student understands the meaning of a word or not, in its own language or another, may be to see if he can use it correctly. But of course this test is by no means infallible. It may be perfectly correct usage to



Mary Warnock

describe a certain letter as, let us say, impertinent. Incongruous comes in only if what I meant was that it was important. "Correctness" in such a case is something to do with the situation I am trying to describe. Syntactically, and even as a matter of pure vocabulary, my shot, though far from the mark, may have offended no rule.

And if we move on, away from

words as linguistic components to whole phrases or sentences, then it is even more obvious that no one can learn a language by learning prepackaged segments, to be used in case of need. Our linguistic tool box is not filled with sentences. Everyone knows the absurdity of learning how to make such statements as "The postillon has been struck by lightning". What is both laughable and frustrating about phrase books is that they offer prepackaged ways to complain that there are flies in the soup which are useless when you want to complain that there are no sheets on the bed. You can make the necessary adjustments for a new situation, and therefore communicate, only if you grasp the original sentence as a flexible part of language as a whole. It will not do to think of it as a counter, to be produced unchanged, according to a rule.

In foreign languages, then, just as much as in his native language, the student needs to learn how to talk, how to listen and understand, in a way that goes far beyond the learning of individual words or phrases. The only time when we may genuinely debate what phrase to "use" is when we are trying to be correct in a purely conventional usage, which in some sense is independent of meaning. Should I end the

letter "yours sincerely" or "yours truly"? Should I address my hosts as "Madame" or "Madame X"? These are indeed questions about which linguistic segments to use. But they are questions about manners, not meaning. To learn such rules is a part of learning linguistic competence, but only a small part.

There is not, then, much difference in principle between learning to communicate in English and learning to do so in a foreign language. In every case the student has to learn to adapt what materials he has to his meaning, to what he wants to say, so that his interlocutor can pick up the clues. Of course in a foreign language teaching will have to start much further back. Meanings have to be learned, expressions of them practised, which were learned in English virtually in the cradle. But in both cases, success in communicating must come through a mixture of intelligence, imitation and confidence. The student must believe that he can make his meaning clear, given time. For many native English speakers, this is a far distant goal even in their own language; and for them, working up through the grades of a English test could be nothing but good. I hope the advisers may withdraw their dire warnings.

DIARY

Philosophy in state on a Wigan Friday afternoon

To an unlikely stately home, Ashfield House, Wigan, once the offices of the Standish Urban District Council and now the management centre of Wigan College of Technology, I last visited the town more than 35 years ago, for a third round Cup tie, when Leeds and Wigan were the acknowledged giants of the Rugby League. (We won 2-0, a Bert Cook goal from 35 yards in the first half.)

So I do some revision on the train, trawling through a centre-page spread on Wigan schools in *Community Education Network* (ed. Professor Harry Rée, Briton Road, Coventry CV2 4LP), and coming in particular an article by Charles Hopkinson, the local CEO, because of his Cambridgeshire pedigree - he started his administrative career there - he's a community education fan, and has devised flexible tricks of the trade.

In Wigan's "community" secondary schools, all the teachers are employed on a "joint appointment" basis, so that the schools, in effect, double up as colleges. I give my young tertiary audience a brief history of the English

education system, and then - although it's Friday afternoon and 4pm is approaching - we fall to discussing the philosophical differences between Wigan education and MSC training. Education, I explain, has an open curriculum, training a closed one. Had the MSC been in business 20 years ago, I hypothesize, they would have press-ganged Ringo Starr into becoming a management trainee at Lewis's department store, and the world would have been deprived of all that drumming. From the look on the face of the head of humanities sitting immediately in front of me, I deduce that this would have been his preferred option.

Perils of Pericles

The head of humanities turns out to be a fellow classic, now translated from grammar to territory, and is upset that associate his hero, Plato, with Sir Cyril Burt, as one of the twin progenitors of



Beware! Left-wing wolves in classical clothing...

tripartite secondary education. I reassure him that since Plato's scientific integrity was somewhat better-founded than Sir Cyril's, his hero is safely ahead in the race for immortality. Not for the first time, I encounter a sense of unease that my classical education engendered left-wing tendencies. I don't have time to tell him that Pericles, who saw it as the duty of the intellectual to ally himself with the demos, was almost entirely to blame for this politically subversive element in my education; together with Pericles' biographer, Thucydides, who wrote some powerful stuff on the virtues of peace and the social corrosion of war in a nuclear age, he'd have been an even more eloquent peace-monger. Before Sir Keith finishes his assault on peace studies, he should take a closer look at Pericles. A dangerous fellow.

I suspect that Sir Keith keeps rushing round the country, denouncing various parts of the curriculum, because the new Select Committee is not giving him enough to do. My journalist colleagues who attended the committee's most recent "scrutiny" session, complain to me that it was boring and lacklustre. I explain to them that in this new Parliament, it is government policy to sanitize Select Committees.

Only the Employment Committee has seriously misbehaved - over GCHQ. The Government whips are well satisfied with Sir William van Straubenzee's current score for charisma and publicity. An average of 0.3, so far. Select Committee watchers tell me.



Diocletian (detail)

Food for thought

I congratulate NUPE on winning another legal round, this time against Birmingham, in their efforts to protect the jobs of their dinner lady members. The injunction which they have been granted will concentrate the minds of all those i.e.s who are currently being tempted to avoid ratcatching by abolishing school meals.

Getting rid of dinner ladies has been for some time now the DES's prefer-

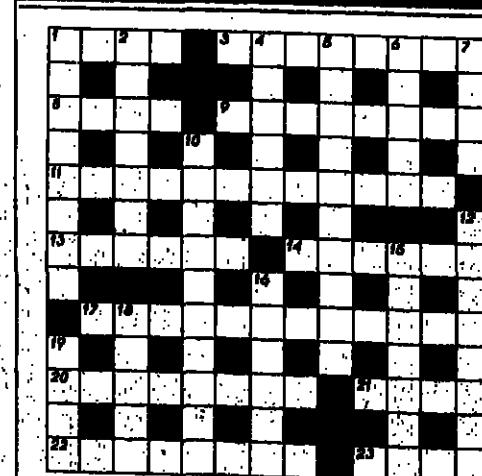
red option for cuts - it helps them get a little nearer to their impossible Treasury cash targets and makes a modest contribution to privatization. But they prefer not to say so explicitly, so as to shift the blame on to local councils.

The policy is discriminatory against women - the school meals service is one of the few remaining areas where they can both work and be free to collect their children after school; it is also acutely discriminatory against the children of the low paid and the unemployed - the most Dickensian educational scene I have ever encountered was on the Select Committee visiting Lincolnshire, watching six and seven-year-olds queuing up to collect their council plastic bag containing a cheese sandwich, a piece of cake and an apple and drinking their cup of cold water, while their more fortunate classmates sat down next to them and opened generously stocked lunchboxes, often with a thermos of hot chocolate.

The abolition of school meals is often defended as a "necessary evil" to avoid "real" education cuts; but it is well to remember that it was for educational reasons that the Liberals introduced them in 1908. Teachers were complaining that hungry children didn't learn anything.

Christopher Price

No 143 CROSSWORD by Rufus



Across
1 A little coal fire? (4)
3 Somebody in the theatre when conditions were very primitive (5,3)
8 Value, mid-afternoon tea-break (4)
9 A strong line of control-works for the company (4,4)
11 Eminent composer? (6,2,4)
13 They happen to find an opening in two quarters (6)

Down
1 Took off for hurried round trip (8)
2 Exclusive group with resting place up country (7)
4 A tradesman is usually to occupy a high position (6)
5 Amazon, country? (2,4,4)
6 Seller a short distance - nearer the shore (5)
7 Aims for the extreme (4)
10 They're not easy to enter because of the local (10)
12 Pier gets shaken, but it stands (6)
15 They, bold, slides and look at them (7)
16 Fearfully impressed (6)
18 Chopper blade (5)
19 Weather, perfect for morning doctor's round (4)

Solutions to puzzle no 142
Across
1 A little coal fire? (4)
3 Somebody in the theatre when conditions were very primitive (5,3)
8 Value, mid-afternoon tea-break (4)
9 A strong line of control-works for the company (4,4)
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Educational Supplement

FRIDAY MARCH 23 1984 NUMBER 3634

Five-year plan for London

London secondary schools are today offered an ambitious five-year recovery plan to help them overcome the difficulties of operating in run-down areas and so get the best out of their pupils.

Designed as a minimum-cost exercise, the plan puts forward a host of radical proposals. They include:
● A restructuring of the two-year courses leading to public exams at 16-plus by breaking them down into six or eight-week units.
● Awarding pupils "credits" on satisfactory completion of each unit.
● The introduction of a common curriculum for all fourth and fifth-formers.

● The setting up of a central computerized "innovation exchange" where schools can pass on new ideas.
It also recommends giving pupils a real say in school policies on key areas such as curriculum and exams, and says that in the interests of letting them

learn from their mistakes, schools should temporarily put up with what appear unwise decisions.

But it backs schools that retain prefects, observing that standards of behaviour are higher, and says that pupils welcome discipline so long as the rules are fair.

It puts forward many new ideas for strengthening links between home and school. Parents visiting school should be greeted by "welcome" signs on the gates and doors.

The proposals come from a committee of inquiry chaired by Dr David Hargreaves, of the University of Oxford, who next month takes over as the chief inspector of the Inner London Education Authority. Its 156-page re-

port covers every aspect of secondary school curriculum and organization, and contains 104 recommendations, each of which is aimed at specific groups of people or bodies.

Mrs Frances Morrell, leader of the ILEA, initiated the report. She said **Summary of the report pages 25-27**

she was proud the authority was leading the way in improving standards. Decisions about putting the plan into effect would be taken at the end of the summer term, after widespread consultations, but the ILEA would not be dragging its feet.

"Above all we are determined to act. This is one report that is not going

to sit on the shelf," she said.

The committee concludes that even when allowance is made for the special problems faced by the capital's schools, pupils are under-achieving on a worrying scale.

The problem is especially acute among children of Afro-Caribbean origin and the ILEA is urged to concentrate on black children who are doing well in the hope it may uncover the secret of their success.

Some of the report's most novel thinking concerns ways of assessing the performance of pupils and schools. It says there is a danger that exam results will be seen as the only credible yardstick of achievement and that children's education will suffer as

schools bow to pressure to pursue this section of excellence at the expense of all others.

But the answer does not lie in scrapping exams. Instead, the committee says, the authority should devise rival indices of performance to quantify pupils' achievements in areas such as problem-solving, personal and social skills and motivation and commitment.

This could be done every year by getting fifth-formers from a rotating sample of schools to complete questionnaires covering these aspects of their time at school.

The committee accords the highest priority to its proposals to break down the fourth and fifth year curriculum into a series of short-term goals.

The report says that its ideas should be implemented in three phases over the next five years.

Nick Wood

Authorities to plead poverty in teachers' pay talks

by Richard Garner

Teachers in England and Wales can expect a pay offer well short of the 4.5 per cent increase already offered to Scottish teachers and all local authority manual workers, when negotiations resume next Tuesday.

Local authority representatives on the Burnham management committee, which negotiates pay, will plead poverty in the wake of the 1.05 per cent increase in pensions contributions the Government requires them to make. They say that will put more than £41m on their salaries bill, and recent Government legislation has already made it illegal for them to levy supplementary rates to meet the cost.

However, they have emphasized that the 3 per cent offer they have already made is not final, and a marginal increase is expected on Tuesday.

In addition, they are likely to rule out the option of going to arbitration to settle this year's claim - taking the view that the delay in reaching a settlement would eat into the time available for a deal on salary restructuring over the next 12 months. Under the current arrangements for negotiating teachers' pay, both sides have to agree before a claim can go to arbitration.

Both sides are anxious to put the finishing touches on a salary restructuring deal by early summer, so that Sir

Keith Joseph, the Education Secretary, can plead with the Cabinet for extra cash to finance it in advance of any decisions on the size of the rate support grant settlement for next year. The next meeting of the joint working party to hammer out an agreement on this is scheduled to take place next Friday.

However, teachers' leaders, who have tabled a claim for a "substantial rise" in pay this year, are reluctant to settle for anything less than 4.5 per cent on the grounds that it would mean them falling even further behind the pay of other workers.

Mr Doug McAvoy, acting general secretary of the National Union of Teachers and leader of the teachers' side during pay negotiations, said: "Clearly, I am not saying that 4.5 per cent - because it has been agreed for the manual workers - is necessarily acceptable for teachers."

"However, the reason given to us for local authorities making that offer to the manual workers is that the local authorities are conscious of the plight of the low-paid - yet no such consideration has been forthcoming from them in response to the evidence of the pay data working party report which showed that teachers' pay levels had slipped considerably."

NATFHE pay claim, page 3



Sheffield City Council is mounting a £2.7m rescue operation to improve school conditions which have been described by councillors as shameful and appalling.

The city's decaying, and sometimes dangerous, schools have been neglected for years. On a recent tour of the problem schools, education committee members visited Crookmoor Middle school where roofs leak, plaster is crumbling, and wiring is decaying.

Its head, Mr David Sandilands (pictured above) describes the toilets as "disgusting" - getting to the stage of being a health hazard. Our children deserve better, much better, than this."

Councillors also visited Meynall nursery, first and middle school, which has a roofless urinal and used huts built in the 1930s; Greengate Lane Junior and Infant school where children are using mobile classrooms condemned three years ago; Netherthorpe nursery first school where a ceiling collapsed this winter; and Southey Green nursery first school where buckets line the corridors when it rains.

Sheffield's capital allowance from the Government for 1984-85 is £3m, half of what it spent over the past year, so the council is pumping in £2.7m from its own resources, some of it trimmed from other budgets, such as that of the social services department.

Governors may get more power

by Biddy Passmore

Ministers are considering strengthening the powers of school governing bodies as an indirect way of increasing parental influence in schools.

Changes could include giving governors the explicit power to prepare annual estimates for their school's budget, to define curriculum guidelines and to make regular reports on progress towards meeting them. This is the kind of strong, independent role governing bodies were meant to have under the 1944 Act - but which few in fact have - and it was strongly supported in the Taylor Report of 1977.

The proposals would constitute a timely government response to new research, funded by the Department of Education and Science, which shows that school governors are often unsure of their powers and purpose and under the thumb of heads and local authority officers. The report, by Brunel University's department of government, said national guidelines should be laid down determining governors' powers and, in particular, how independent they should be of the local education authority.

But strengthening of governors' powers would also provide an indirect way of strengthening the parents' role, as under the 1980 Education Act, all governing bodies will have to include at least two parent governors (one in the case of voluntary aided schools from September 1985).

It could therefore be presented as one positive outcome of education ministers' exercise on parental choice and influence, which has been limping along since the general election. One main option was ruled out straight after the election, when Mrs Thatcher said flatly that vouchers were impracticable, and another - open enrolment - has come to grief in Kent.

A further option - centrally funded selective schools in inner city areas - is thought to stand little chance.

One other possibility which has been suggested is an increase in the number of parent governors schools must have.



Ashfield House, Wigan... unlikely stately home

Work of art and art in work

Congratulations to Jonathan Croall and Ken Robinson on their most recent cultural venture - *Arts Express*, 166 St John's Road, London SW11, £2.80 p/w a nov. monthly, sponsored by the NatWest and the Arts Council. It contains some excellent material about the arts in education, including a justifiable dig at the MSC's Memorandum 832/10 which excludes culture from the T2 Youth Training Scheme.

Projects which concentrate primarily on activities such as theatre, dance, mural painting are unlikely to

meet the requirements... and should not therefore be approved. In other words, our leisure industries have no future.

But the policy is even more misguided than this. It emanates, I suspect, not so much from the MSC as from Mr Peter Morrison, their ministerial nanny. (Mr Morrison, as he is fond of telling ladies lobbying for MSC creche facilities, is an expert on nannies, having had more than half a dozen himself.)

Many teachers will testify that a dose of drama can often transform clumsy, unemployable adolescents into confident, outgoing adults. Indeed in Mr Morrison's own case drama would have been an excellent alternative to his unfortunate surfeit of nannies. The exclusion of the arts as irrelevant to employability may do something to ensure a compliant workforce. But it will not produce a creative one essential for any economic regeneration in the future.

Arts/Books

William Shawcross on Vietnam's civil war; Alan Ryan on the history of the common people; Alan Rusbridger on television and terrorism; Stuart Macrae on newspapers and Parliament; Richard Brann on Robert Bly; Nick Baker on some new children's plays about racism; Sheila MacLeod on skinheads; Royal Court Young Writers' Science textbooks 28-33

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Spiritual gap

Schools have only half the RE teachers they need, survey shows

Lost billions

How £11,700m has gone astray under the present pensions plan B

Simple selection

Oxford (picture right) explains its new admissions policy

Future shock

Why biotechnology will change the classroom

Platform

Alan Lambourne questions the MSC's expanded role in training

Motivation: the name of the game

The report which Dr David Hargreaves's Committee has just presented to the Inner London Education Authority on *Improving Secondary Schools* (and which we summarise on pages 25-27) can be welcomed as the richest harvest of ILEA's three-pronged attack on under-achievement.

When the newly-elected members of ILEA took over in 1981, one of the most widely publicized commitments of the leadership (and in particular of Mrs Frances Morrell, then chairman of the schools sub-committee, now leader of the authority) was to examine, and alleviate, the causes of under-achievement and particularly under-achievement among black children, girls, and working class children.

The initiatives which followed on equality of opportunity, multi-ethnic education and anti-racism have been the subject of much subsequent consultation, dissemination and exhortation - and also a certain amount of backlash. Although their necessity was widely accepted in principle by schools and teachers, in practice - as the Hargreaves Report acknowledges - there has also been a tendency among teachers under stress to complain that "the dimension and pace of the changes being required are too fast."

In one sense this new report, with its 104 recommendations for action, and five-year plan for implementation, might be seen as yet another threatening load of pressures and demands. But that would be a mistake.

The Hargreaves Report is remarkable for its positive, frank, practical, and yet radical approach, as well as the speed and efficiency with which it has reported on working-class under-achievement. The appointment of Dr Hargreaves (the new guru of the curriculum innovators) to head the inquiry may have seemed like an inspired choice as a sympathetic foil to the progressive thrust behind the political innovation. But, in the event, the independence of both chairman and committee has produced a document with many radical ideas but by no means all the predictable stances.

One of the greatest strengths of the report, and the aspect which offers the best auguries for its successful implementation, is that it is firmly rooted in what is happening in the schools because the committee has fully involved teachers, pupils and parents from the very beginning.

This has not just been a matter of collecting evidence: though plenty of passionately-held convictions seem to have been forthcoming. The committee decided to go straight to the pupils themselves to ask

them the reasons for their disaffection; perhaps more important, they took care to word their questionnaire directly enough to get some equally outspoken answers. Thus, 72 per cent of regular truants found it easy to identify with the statement: "I have had little chance to do things I enjoy at school this year".

As for the teachers, the committee used their many visits to schools not just to take evidence, but also to collect examples of good practice, many of which are quoted - with full credit given to named schools - in the report.

The report is refreshingly, and sometimes unexpectedly, positive in its approach throughout. At the core of its argument are what are described in the opening chapter as four "aspects of achievement". These relate to academic achievement, as assessed in public examinations at 16-plus, but also to the development of practical skills (aspect 2), social skills (aspect 3) and self-motivation and responsibility (aspect 4).

Most of the major recommendations are built on the assumption that lack of motivation is at the heart of under-achievement as well as disaffection, indiscipline and truancy. In this, Dr Hargreaves and his committee prove close in spirit to Sir Keith Joseph, as evidenced in his Sheffield speech. Nor are they out of step in their views on the curriculum with DES and HMI documents on the subject, though they write more directly and fluently (which is a relief), and sometimes take them further: by adding "technical" to the HMI areas of experience, for example, and translating it into CDT or computer studies as an item in the common curriculum up to 16.

The fact that they were briefed to report within a year has not prevented the committee tackling, head on, all the complex issues which can affect motivation, which are universally recognized to involve home background just as fully as curriculum. Thus, the recommendations include a number of explicit steps designed to reach out to working-class parents, that will bring them into as close an involvement with the schools as the middle classes have traditionally been - to the lasting benefit of their children's education. There are also proposals that would give the children themselves more responsibility for the organization of their own work.

On curriculum and examinations, there is a good deal of common ground with the Secretary of State, though again ideas have been developed further, and not necessarily in the same direction. The report puts up a reasoned argument for a broader compulsory

common curriculum, with a wider option choice postponed from 14 to 16, partly on the grounds that it makes more sense to talk of the 14 to 18 group now than 14 to 16.

The report also puts up a more convincing argument than Sir Keith himself for getting rid of the 3-5 per cent of bad teachers who can damage pupils and their colleagues, says clearly that bad teaching can be a bigger turn-off than subject content and makes a point of reminding heads inclined to drag their feet on dismissal procedures that it is the policy of the authority to support them.

The surprising Hargreaves-Joseph accord extends to improving motivation by setting achievable and measurable goals, and it will be fascinating to see what the Secretary of State - as well as the ILEA leaders - make of the most innovative idea of all in the Hargreaves report: the proposal for half-term credit units for all fourth and fifth-year courses.

The committee has not ducked any emotive issues, but looked coolly for evidence. What is most telling is its practical approach, the recognition that "change can only start from where schools are now" and that it will have to be effected through a change in priorities rather than extra resources.

The five-year plan for implementation looks realistic and helpful, though it is more convincing on units and credits and the involvement of parents and pupils than it is on monitoring motivation. Still, it is Dr Hargreaves himself, now London's Chief Inspector, who will bear much of the responsibility.

What might tell most against it as far as the schools are concerned is sheer weariness at the idea of implementing yet another initiative, while the demanding timetable for rooting out racism and introducing multi-ethnic and equal opportunity developments is still hanging over them. With hindsight, one might decide now that this inquiry, which covers sexism and racism as well as working-class under-achievement as an intrinsic part of its brief, might have subsumed them all.

Nevertheless, the Hargreaves Report, which is likely to be a source of inspiration to many another ILEA, as well as the DES and Inspectorate, is a formidable vindication for Mrs Morrell's determined drive to root out under-achievement from London's schools: if it is implemented, it ought to counter many of the criticisms of performance in ILEA put about by the Government in support of its constant attempts to break up the authority. It would be ironic indeed if implementation were now scuppered by rate-capping and joint boarding.

COMMENT

Wriggling on the hook

Few of Sir Keith Joseph's policies have looked quite so inglorious - or plainly absurd - as that advanced in his paper on corporal punishment. This, it will be recalled, noted a judgment of the European Court - which (in effect) upheld the right of a parent to refuse to allow his or her child to be caned if this was against the parent's philosophical belief. Instead of grasping the nettle (as the Secretary of State for Scotland has done: the European Court judgment was given in a Scottish case), Sir Keith put forward a complicated suggestion for registering in advance parents' views on corporal punishment, and dividing pupils into two groups, one of whom could be beaten with philosophical approval, while the other was immune to all physical punishment.

Now, it seems, another clutch of cases is wending its way through the European legal labyrinth. The Scottish case caught corporal punishment - by a side-wind, building on a clause in the European Convention on Human Rights which guarantees respect for parents' philosophical beliefs. A case now coming up goes directly to the question of whether children's school teachers, Article 2, United Nations Declaration on the Elimination of All Forms of Racial Discrimination



ments. The European Commission makes a preliminary examination of all cases brought under the Convention and has declared this one to be admissible. It is now for the parties to the dispute to seek a "friendly settlement", failing which it is likely to go to the European Court.

If the Court decided - a year or more hence - that corporal punishment of all kinds, administered in schools was "degrading treatment or punishment within the meaning of the Convention, then that would seem to force the Government to bow, gracefully, to Europe's finer sensibilities. But the Government may still decide to get a settlement behind closed doors which would avoid a formal ruling.

The truth of the matter is that in this issue the majority of one of the

cannot understand the British Government's (and many British teachers') determination to retain a feature of school life which almost all other western nations have banned. It is ironic that Britain, which has traditionally seen itself as a champion of individual freedom, should repeatedly find itself before the European Court (as in the case of phone-tapping) for failing to protect the individual against Authority with a capital A.

However insular the British may be, the world will go on believing them to be Europeans. The British still find it difficult to equate the historic rights of free-born Englishmen, weakly guaranteed by an unwritten Constitution in an age of all-powerful Parliaments, with the more abstract, but now justiciable, Human Rights which are also part of the Western heritage.

Double dealing

As the Scots teachers prepare to accept a 4.5 per cent offer in line with other local authority staff, teachers and their employers in the Burnham Committee are disenchanted with the employers' refusal to raise their opening bid of 3 per cent (page 11).

The Supply of the authorities, also making some attempt to the teachers a

no reason why they should expect the teachers to settle for less than the authorities have offered their manual employees, nor yet why teachers in England and Wales should be content with only two-thirds of the rise offered to the Scots.

One argument put forward by the employers should be dismissed out of hand. They claim they cannot make a fair offer because they are obliged to pay an extra 1.05 per cent for teachers' pensions. But the decision on this was quite clear. The Government decided that the employers should pay. What the employers are now trying to do is to reverse this decision inside the Burnham Committee by recovering their extra contribution (and then, a bit more) from the teachers.

Last time the Superannuation Fund was revalued (in 1976) the employers' contribution was reduced from 9.4 to 8.4 per cent. What the authorities are now saying would be more plausible if in 1976 they had passed this cut on to the teachers. They didn't - they took their customary shelter behind the reigning incomes policy.

no comment

The University buildings are largely of low elevation, fitting the scale of human activity.

Second opinion

One Flew over the cuckoo's nest

The language of race relations and multi-cultural-racial-ethnic education could do with some tidying up. The term "racism", in particular, works like a blunderbuss. People resort to being peppered with it and those who fire it too often miss the barn door.

How does the problem arise? Partly because there are two distinct elements to "racism". The first starts from an attitude of mind. This attribute inferiority to certain racial groups and includes hostility towards them.

The second element in "racism" denotes a condition of affairs; a set of circumstances which disadvantage one or more racial groups and cannot be justified.

The response to racism depends on which element of it is being tackled. Intentional racism, direct discrimination, can be dealt with directly. This how and what we teach in this school and this is how we deal with racism in the classroom.

Institutional racism, indirect discrimination, has to be dealt with rather differently. The first task is to understand how it works. Suppose a school has a rule that pupils who are suspended can return only if a parent comes to school with the child at a given time in the school day. On the face of it, there is nothing unreasonable about such a rule. But suppose because it does not believe problem go away if you choose not to notice them, the school also notices that a disproportionate number of black pupils are among those who are out of school longest because a parent has not complied with the rule.

Then suppose it is to be discovered that a high proportion of black parents cannot get permission to leave their jobs in the way the school requires. Where does this leave the school?

The obligation on the school is to change the rule which is having a discriminatory effect. Sometimes the change will be possible; sometimes it will not. A "racist" institution is quite simply one in which discriminatory rules or systems apply and no one has either noticed or tried to remove them.

All of which brings me to Education, Race and Revolution, the latest product of the Centre for Policy Studies (TES March 16). Its author, Professor Antony Flew, looks at "racism" and a number of other notions in the vocabulary of race relations. He gets into a terrible tangle with the whole business.

One might overlook his persistent inaccuracy on matters of easily-checkable fact (he asks, for example, why the ILEA does not publish measurements of children's performance; something it has done for years); or might also overlook his attribution of views to people who do not hold them (he attributes to Brent ILEA a "full-frontal, hardcore version of neo-Bolshevism" he detects in the ILEA; this despite the ringing declaration in Brent's Book 1 on multi-ethnic education that "this individualist school autonomy is an important and cherished feature of our democracy and therefore forms the basis of the authority's change strategy.")

But what is one to make of epithets such as "slimy euphemism" applied to the notion, well established and understood within the education service since Plowden, of "positive discrimination"? And there are other such distasteful examples of intemperance and unbecomingly expressions.

There is a dividing line between vigorous polemic and the intellectual equivalent of foaming at the mouth. Someone should draw it to Professor Flew's attention.

Peter Newman

Mr Newman is chairman of the Centre for Policy Studies.

Latest Euro case may herald total ban on caning

by Biddy Passmore

A case that could finally force the Government to ban corporal punishment in all state schools has reached a crucial stage in the European human rights machinery.

Meanwhile a survey by STOPP, the anti-caning pressure group, shows that more and more local education authorities are going ahead and banning the cane.

The European Commission on Human Rights has declared admissible - that is, worthy of consideration - a complaint from an English mother that corporal punishment is "degrading treatment or punishment" and thus a breach of the Human Rights Convention.

The case may well produce a definitive ruling by the European Court on this issue. So far, the Court has only ruled that children should not be subjected to corporal punishment if their parents objected.

As a result of the ruling two years ago, the Government issued a consultative document last summer setting out three ways in which parents could opt not to have their children caned and promising to legislate on the agreed solution. Ministers are still considering the responses.

But if the Court now sets the general rule that corporal punishment is degrading - or insists on very strict controls - the Government's action will not go nearly far enough.

The case concerns a girl, then 16, who was caned on the hand by her headmaster, producing broken blood vessels and two blood blisters. She lost a civil action claiming damages for assault in the county court in 1981 because, the court said, the punishment was not "improper, inappropriate or disproportionate".

Lecturers prepare for action over pay claim

by Diane Spencer

College lecturers rejected a 3 per cent pay offer last Friday and the National Association of Teachers in Further and Higher Education is asking members to prepare to withdraw from voluntary duties in support of demands for a better offer.

The employers argued that the offer was generous, given the financial restraints imposed by the Government, and the increase of 1.05 per cent in employers' contributions to pension.

Mr Peter Dawson, general secretary of NATFHE, said the offer was "totally inadequate".

NATFHE is seeking a substantial pay increase to keep abreast of the rise in average earnings and inflation, which it estimates at around 26 per cent.

The union is also pressing for better promotional prospects for lecturers stuck on the lowest grade.

No date has been fixed for further negotiations.

Sir Keith warns race bullies

The Government will give the maximum support to local authorities, teachers and governors to stop racial bullying in schools, Sir Keith Joseph said this week.

He said racially motivated bullying in schools would do serious harm to children's educational chances, and in the long run, to race relations in society.

Speaking to members of the Reading Chamber of Commerce, he said: "While it remains the direct responsibility of teachers and heads to take effective action in dealing with any such incidents at first hand, the Government wishes to give the maximum support possible to all those concerned in stopping racial bullying, whoever are the victims."

Mr Ian Smith, chief education officer, said the next step would be a meeting of the full council on April 5 to consider submitting the plan to public consultation.

The full proposals will be circulated to teacher associations, governors, parents, local political bodies and trade unions.

Mr John Huckle, secretary of Waltham Forest NUT Association, said his union was concerned about jobs and the education of children. "Seven

schools closing doesn't help us one little bit. They won't give us a guarantee of no compulsory redundancy although they say they will do all they can to avoid it."

"As for education, only one group of children has so far gone through the present system. You wonder how much the new proposal is about cash and how much about education. Local NUT policy at the moment is to support the present system."

Seven secondary schools could disappear in the outer London borough of Waltham Forest. If plans drawn up this week by the education committee are implemented.

The reorganization, forced upon the borough by falling rolls, will involve scrapping the present system of comprehensive high schools (11-14) feeding a smaller number of senior comprehensives (14-18). They would be replaced with 11-16 schools, leading to two sixth form colleges.

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NEWS



Mrs Beth Blackshaw, wife of the former head of Darlington Hall school, protested at a meeting in London this week at which the school outlined plans to restore its image. She handed out a statement protesting about the treatment of her family since last September when her husband, Dr Lyn Blackshaw, resigned. The Blackshaws still live in the head's house at Darlington and face eviction proceedings in May.

RE council calls for more qualified staff

by Bert Lodge

Schools have fewer than half the number of religious education specialists they need and Government planning will prolong their shortage in spite of regular statements of official support, according to a survey published today.

It is produced by the Religious Education Council of England and Wales, which represents nearly 400 Christian and other faiths.

The council calls for at least two periods of RE a week for 11 to 16-year-olds, and one specialist teacher for every 20 RE pupil periods a week. It also wants the quota of RE students on secondary teacher training courses to be doubled and more time allocated to the subject on primary courses.

The position shown up by a 1977 DES survey, that 59 per cent of all teachers taking RE were unqualified in the subject, has changed very little, the council found. In a DES statistical bulletin last year, RE was given a shortage rating, and to an inquiry by Mr Ian Butterworth, HM Inspector for

teacher training, among 10 local authorities, six reported moderate or serious problems in RE staffing.

The report, by Dr Brian Gates of St Martin's College, Lancaster, also points out that promotion is inclined to take RE specialists away from teaching the subject.

The council concedes that the quotas of RE specialists in secondary teacher training introduced in 1982 show a marginal improvement.

In any case, the council, with the backing of many local authority advisers, wants provision for two 35-minute periods a week for 11 to 16s.

This would mean about 13,000 teachers by 1985 compared with the present force of about 6,000.

At primary level, of 12 universities providing a PGCE primary course, seven provide no obligatory course in RE, the report notes.

Religious education provision, 1984. By the RE council for England and Wales. From RE Enquiry Service. St Martin's College, Lancaster. £1

Split-studies degrees to go on trial

A programme that will allow students to split their degree studies between polytechnics, universities and the Open University, is likely to be tested next year.

The plan also envisages taking into account previous learning experience of mature students, who would then be exempted from certain parts of degree courses.

A working party at the Council for

If the scheme goes ahead, it will be tried out in London for a five-year period. It will involve all the London polytechnics, and probably London, City and Brunel universities.

It is envisaged the OU will be included, allowing students to take parts of their degree programme by distance study.

A working party at the Council for

National Academic Awards has been finalizing details of the scheme since the autumn. Its recommendations are to be put to the CNAA academic policy committee in June.

The scheme would then become fully operational in time for the beginning of the 1985 academic year.

THES

Teachers bar two pupils

by Richard Garner

Teachers at two schools in Brent are refusing to teach two pupils who councillors have decided should return to the classroom despite the fact they were excluded from school after allegedly violent and disruptive behaviour.

Members of the National Association of Schoolmasters/Union of Women Teachers voted unanimously to refuse to teach the two pupils - one from South Kilburn High School and one from Claremont High School - should they be returned.

Mr Douglas Beaumont, general secretary of the Brent NAS/UNT, said that one of the South Kilburn High School boys' teachers had produced a 13-page dossier outlining a catalogue of "outrageous behaviour" which included "bullying and extortion". He had already been excluded from three previous schools.

Mr Arthur Steel, the Conservative chairman of the education committee, said he supported headteachers and teachers in the borough in their efforts to control violent and unruly behaviour.

The decisions to return the two pupils to school had been taken by an appeals panel - set up by the previous Labour administration to which parents of pupils excluded from school could appeal.

A spokesman for Brent council said that talks were taking place between council leaders, the parents of the two boys and the staff of the school.

THE Schooldays

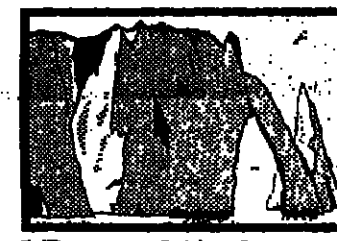
REFRESHER COURSE IN GENERAL KNOWLEDGE. PART FOUR



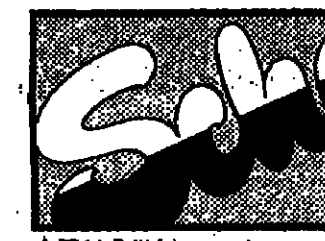
1 Which European city has this animal as its symbol?



2 What's the name of this castle and who received it as a present from Henry III?



3 Where can you find these famous cliffs?



4 Which British company has risen in the space of 2 years to one of the country's leading school tour operators?

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from Global

References to Orwell's *Nineteen Eighty Four* were already overdone when the current year was only a few days old. It is, therefore, very tedious to find that the White Paper *Training for Jobs* is actually so unsuitable that it uses the techniques that have been so elaborately analysed in every celebration of that novel's coming of age.

In the White Paper's 56 paragraphs we can find history being re-written, the enemy being re-defined, and language being tortured into new meanings to persuade and obfuscate.

For example, take the key sentence of paragraph 2: "Training must therefore be firmly work-orientated and lead to jobs." The word "therefore" is magnificent: it is not there to introduce logical conclusion but to give a spurious respectability to the two ideas that follow it.

Perhaps the more objectionable is the notion that training must lead to jobs. It is wrong to imply that the namby pamby views of non-advanced further education (NAFE) prevent students from going into jobs. The jobs simply are not there. It seems unnecessary to say that training must be work-orientated: by its very nature it is "work-orientated" or, better, "task-orientated" since it concentrates on improving the performance of a skill.

The competence and success of the young people leaving our colleges shows the further education (FE) service is able to train effectively. The detriment comes in the addition of "firmly": is this an attempt to write out syllabuses the general studies, the "education" that we keep trying to foist on our students and their employers?

But then the Youth Training Scheme recognizes that flexibility, personal skills and transferability are the things that will lead us out of the doldrums. This White Paper by taking such a mechanistic view is even turning away from the Manpower Services Commission's own programme.

Perhaps we should not find that surprising. After all, the White Paper tries to persuade us that training is an investment which employers will be keen to make provided we ensure that they can do so easily and cheaply. Not only is this view contradicted by the evidence, and by British industry's track record, it is also denied by the very existence of the MSC.

The MSC has been set up (and steadily expanded) because training has a national dimension, is too important to be left to employers and can only work as a partnership. That is where the failure lies not in our unresponsiveness to agree on objectives and means of delivery.

The FE service certainly is not unable or unwilling to meet industry's needs. Employers are represented at every level from the examination boards to FE sub-committees and governing bodies. One Somerset college has 12 governors representing industry and four advisory panels with an average of eight industrialists each - and it is not unique. In fields such as microelectronics, FE colleges were among the first into the field creating awareness among employers and then training their staff. Courses are regularly reviewed to meet the changing demands of the local employment



How training has been redefined by 'Newspeak'

Alan Lambourne poses nine questions which the Manpower Services Commission will need rapidly to address if it is to prove itself more effective at training for jobs than I.e.a.s or FE colleges have been in the past

ment. Not only will the measures proposed fail to secure responsiveness and continuity of provision, they will add to the expense of delivering the (unidentified) work-related courses.

What if the MSC in Sheffield decides that training in the Midlands should be expanded at the expense of FE in the rural South West? Who will meet the costs of redundancy? Who will explain to the disappointed students, their parents and their prospective employers that their needs are not important enough to be met?

There are many more questions to be asked. For example, the calculations of paragraph 46 concerning the expenditure on "work-related" FE and of MSC's current spending in that area are highly dubious. In general *Training for Jobs* arrives at fallacious conclusions from dubious assumptions by a mysterious process. No wonder colleges and the local authorities find it hard to know how to respond.

The local authority associations have - for the time being, at least - closed ranks and agreed not to cooperate on the implementation of the

White Paper's proposals for NAFE. The MSC has failed to get agreement to the setting up of a steering group to work out the details of how it would spend its windfall.

Nevertheless, there must be people who are at this moment beavering away to make the White Paper a reality and I should like to ask them these nine questions:

1 Which courses will you commission from colleges? If they are to be selected from colleges/prospective users you will have changed nothing except the financial mechanism by which they are funded and will have conceded that those courses were sufficiently work-related.

2 Will you seek to establish new courses or radically alter existing ones? If so, you will have to do a considerable amount of curriculum development in a comparatively short space of time. No doubt you will want your courses to lead to recognized qualifications in which case you will need to

work with the examining and validating bodies who (until now at least) have convinced their employer representatives that general studies and other non-work related elements are important.

3 Will you hope to work through the existing course approval mechanisms such as HMI and the RAC? If so, you will need to take into account existing provision and to find a way of presenting your case. If not, you will have to change the regulations and the repercussions will be considerable.

4 How will you establish the needs of employers? A local mechanism will be essential and Area Manpower Boards would not seem to be the answer, even if the trade union representatives cooperate.

5 If colleges are to move in new directions they will need new staff, or existing staff will have to be re-trained. Whose employees will they be? What sort of contracts and conditions of service will they have? And who will undertake their training and induction? What will happen to the staff displaced?

6 Will you want to go the whole hog and throw aside the FE conditions of service and bring in instructors alongside lecturers? After all that is how the Skills Centres are staffed. If so, you will need to negotiate with the lecturers' union, NATFHE, the amendment of nationally binding agreements.

7 How quickly will you be able to move? It takes time to recruit and train staff: what is more, prospective students, their parents and their potential employers will need to know well in advance what courses are to be available if they are to make rational and considered decisions.

8 By what means will you conduct your negotiations with employers, colleges and I.e.a.s? Even if you manage to devise an effective local advisory mechanism you will need staff to implement its recommendations. In 1985-86 MSC Training Division staff will be implementing the Adult Training Strategy: to ask them to take on this additional burden (and staff cuts as well) seems a little unfair even if their numbers are supplemented by the secondment of I.e.a.s. officers as the White Paper (somewhat optimistically) suggests.

9 And there is one further point. If the Government goes ahead with its proposals and if the result falls in any way short of perfection the blame will be ascribed not to those who made the proposals, nor to our nascent national training agency but to the I.e.a.s and to their recalcitrant colleges.

Alan Lambourne is deputy chief education officer (post-16 education) for Somerset.

An independent and a comprehensive school reply to criticisms levelled at them in HMI reports

St Kevin's changes for the better

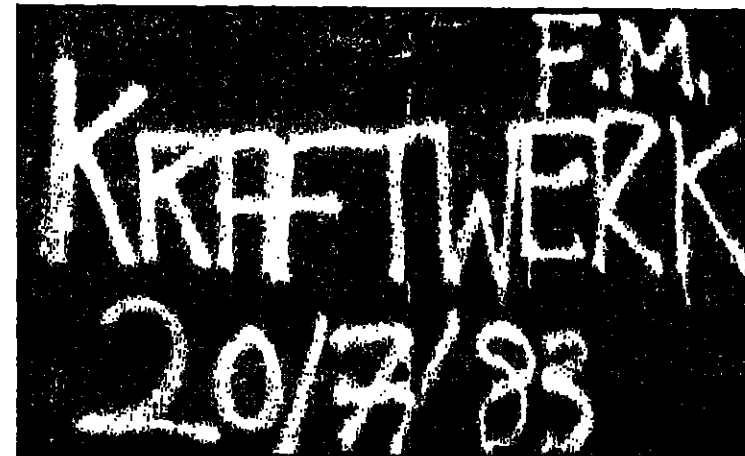
by Diane Spencer

St Kevin's RC comprehensive school in Kirkby, near Liverpool, is a "better school" as a result of a critical HMI Inspectorate report published last October, according to its head, Mr Ken Masters.

He spent 30 hours serving on a joint committee of governors, advisers and members of Knowsley education committee preparing a detailed response which has just been published.

Vandalism, theft and lack of resources were undermining the work of the school, the Inspectorate said. Falling rolls (22,000 boys in 1974 to 1,083 in 1982) had aggravated the difficulties. But the school was praised for its open scholarship record to Oxford and for good relations with parents.

Mr Masters had not agreed with all the criticisms or suggestions in the HMI report as he felt that Inspectors



St Kevin's... victim of vandalism

were "insensitive to the problems in this part of the world".

"But we are not stupid enough to think we have all the answers," he added.

He had already made some changes to the curriculum and timetable as the Inspectors had recommended. Only one language instead of three is taught in the first three years; life skills and general science are now offered in the fourth- and fifth years and general studies in the sixth form as inspectors thought the less able were suffering at the expense of the high-liers.

Efforts are also being made to curb vandalism and to improve the environ-

ment: derelict bicycle sheds will be demolished, litter collecting competitions organized and the education committee urged to improve its arrangements for doing repairs.

But the joint committee said tartly: "HMI's comments on the unattractive external design of the school are noted but are not thought to be helpful."

Many much needed improvements are unlikely to be made as the school is due to merge with St Gregory's girls' school in 1986.

Pledge by St Probus

by Richard Garner

An independent school which has been told by HMI Inspectorate that its curriculum does not match up to the pledges in its prospectus has said the report has come like a "tornado" and that it will review its offers.

Mr F E Wright, head of St Probus school for four- to 16-year-old boys in Salisbury, Wiltshire, said: "This criticism has come upon us like a tornado and - quite clearly having been hit by a tornado, the governors have decided they will endeavour to satisfy the points made by HMI."

"However, in a fee-paying school, it is the parents you have to satisfy - and we have had an absolute minimum of complaints from them about the school."

St Probus is a day school with 57 pupils on roll at the time of the HMI report. Although the school does not specifically deal with special educational needs, it has 18 pupils with various degrees of handicap: a partially hearing boy, four with physical defects,

including one epileptic, 11 with learning difficulties and two with behaviour problems.

The HMI report says: "The provision of apparatus and equipment is barely adequate for the present curriculum and there are specific shortages in each subject."

"There is not enough equipment for the GCE course in general science, yet many cupboards and drawers contain surplus materials and equipment which needs to be discarded."

However, the report concludes that concern and care for boys at St Probus was in evidence and that the standards of behaviour are generally satisfactory.

But it adds: "The school claims in its prospectus that the curriculum is broadly based to provide a general education leading to O level GCE examinations."

"The resources of accommodation, staffing, equipment and materials are insufficient for the school to provide more than a narrow curriculum and its examination objectives are not being achieved."

"There is, therefore, an urgent need to review the slanting resources of the school in order to determine clearly what it may best serve."

Mr Wright said that even the Inspectors were agreed that the school had an "impossible task" because of the wide range of ability of the pupils and the smallness of the school.

He added: "The top priority here has been character training and good manners."

HMI Reports, Page 14

Wiltshire heads up in arms about budget 'below basic needs'

by Hilary Wilce

Wiltshire secondary heads have sent an angry protest to their education chiefs, saying they do not have enough money to satisfy even the basic educational needs of their pupils.

The statement was agreed to unanimously by the almost 50 heads who attended a recent meeting of the Conference of Wiltshire Secondary Heads. Four or five secondary heads were absent from the meeting.

The heads say they are short of standard textbooks, equipment and furniture, and that they cannot afford to have faulty, and possibly dangerous, equipment repaired. A level books in subjects such as geography and science are in particularly short supply, and the soaring cost of consumable materials has seriously curtailed practical science work.

Without the substantial financial contributions made by the county's relatively affluent parents, the situation would be very much worse, the heads say.

The statement of protest has been sent to the education chairman, Mrs John Main, to all county councillors and to the chief HMI, Mr Eric Bolton.

It points out that the finance available does not allow them to carry out the county's new curriculum guidelines, which were agreed by the education committee last month and which are now being sent to governing bodies for consultation.

It also fails to meet the needs for furniture, apparatus and equipment, the heads say.

The statement concludes: "The secondary heads acknowledge that they are only able to maintain high standards in their schools through the generosity of parents, industry and other voluntary sources (who already fund education through their rates and taxes). They also acknowledge that this is not consistent with the 1944 and other Education Acts."

Mrs Anita Higham, chairman of the conference, said the statement was "really rather polite and courteous", given the extremely strong feeling among heads.

The county's new draft curriculum policy, which says pupils must study a wide range of subjects throughout their secondary schooling, contained "many good and radical ideas", she said, "but we are totally stymied. We just cannot respond to it."

Mrs Higham said her school, Sheldon School, in Chippenham, had raised £22,000 over the past three years. Without these funds it would have had no computers, no pottery kilns, no drama studio, and insufficient laboratory resources and physical education equipment.

Mr John Price, head of Marlborough St John's School, said a number of the schools had had big appeals raised between £30,000 and £40,000.

Wiltshire has featured in the bottom four authorities for the past two years in HMI Inspectorate's annual report on the effect of education spending policies.

Doubt on Sir Keith's promises

by Biddy Passmore

The ability of Sir Keith Joseph, the Education Secretary to carry through the promises in his Sheffield speech was called in question last week by Mr Giles Radice, Labour's education spokesman.

Speaking in Leeds, Mr Radice said he has given a conditional welcome to Sir Keith's objectives and to his recognition of the past success of comprehensive schools. But the signs since then had been that the Education Secretary was not prepared to find the means.

Education spending was planned to fall by 7 per cent next year and the Government's attack on local government meant Labour local authorities would no longer be able to protect their education budgets, Mr Radice said.

And while Sir Keith had promised at Sheffield a new partnership with teachers and local authorities, his handing over of vocational education to the Manpower Services Commission without any consultation showed that the only kind of partnership the Government understood was that between master and slave.

Mr Radice was also worried about the Education Secretary's priorities. He had devoted a major speech to peace studies, he said, although he had received only six letters of complaint about it, and there were many more serious problems, such as shortages of teachers and books.

5p rise in cost of meals

School meals in North Yorkshire will cost 5p more from the beginning of May, the education committee decided last week. This will bring the cost of a primary school meal to 65p and the value of a free school meal in secondary school will be raised to 74p.

More starting school at 3 and 4

Forty per cent of three and four-year-olds now go to school, according to the latest Government statistics. This is a 13 per cent increase over the 1974 figures.

And the overall numbers increased by 21,000 in 1983. More than 458,000 went to nursery or primary schools in England in January 1983.

The number of primary schools providing nursery classes rose to 3,764 in January 1983.

Although the number of nursery schools fell by 7 per cent to 575 in 1983, the number of part-time pupils in them increased while full-time pupil numbers declined.

Statistical Bulletin 484: Pupils under five years in each local education authority in England - January 1983. DES.

Kinnock questions rights

Arguments for the freedom of parents to send their children to private schools were dismissed on Wednesday by Mr Neil Kinnock, leader of the Labour Party.

Answering questions on "liberty" at a Politics Association conference in London, Mr Kinnock said: "In a democratic exercise of freedom there is only one real border - the point at which its exercise by some individuals starts to impinge on the freedom of others."

He attacked private schools for their effect on the maintained sector. It was an accident of history in this country, he said, that the status of bought schooling was so high that all other

forms of schooling were measured against it.

This meant that comprehensives were measured not in terms of how they dealt with their social and economic circumstances but on how their O and A levels and university entrance results compared with those of a system that was different in every way in resources, social catchment and discipline.

It would be "daft" to legislate against the advantages conferred on maintained schools in areas of good housing and caring parents, he said. But those advantages did not begin to compare with the ability to purchase education.

Campuses in course deal

Ten Oxford undergraduates will actually start their course at Sheffield University next October, under a special arrangement for teaching Japanese agreed between the two universities. The students will spend one year at Sheffield learning Japanese

from scratch - a Sheffield speciality - before going to Oxford to complete their four-year course in Japanese Studies. The University Grants Committee has agreed to award Sheffield an extra £25,000 a year to cover the cost of two additional staff.

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Form 374

NEWS

VAT blow on take-aways

by Diane Spencer

School children will be badly hit by the Budget increase of 15 per cent VAT on fish and chips and other hot take-away food, the Child Poverty Action Group

The Chancellor's Budget speech coincided with the publication of the annual census of the number of children taking school meals.

This revealed that the number of

children on free meals topped the million mark for the first time last October: 1,074,882 compared with 964,130 in 1982.

More than 35 per cent of school children paid for the meals and nearly 16 per cent got them free. The rest made other arrangements such as bringing their own food (28.2 per cent), according to the census.

With "a flurry of education authorities" reducing the entitlement to free meals to the minimum or abandoning meals completely, more children are turning to the chip shop, said Mrs Ruth Lister, director of CPAQ.

The one-million children on free meals is a sad measure of the growing poverty which is blighting our children," she added.

The census figures were announced by Mr Bob Dunn, education junior minister, in reply to Mr Henry Greenway, Tory MP for Ealing North. They also showed that 54.2 per cent of primary school children had school meals compared with 51.8 per cent in 1982; 47.8 per cent of secondary compared with 46.1 in 1982, and the figure for pupils bringing their own food remained fairly stable.

These chips are cold give me my VAT back



Pocket money drops by 14%

Children's pocket money has fallen by an average of 14 per cent this year - with boys falling worse than girls, according to a new survey. The Pocket Money Monitor published annually by Wainwright reveals that average weekly pocket money for 5 to 16-year-olds has dropped from £1.22 to £1.05. Boys' pocket money was cut by an average 23p to £1.11, but girls' by only 10p to £1.01. At the same time average weekly earnings from part-time jobs rose from 28p to 31p.

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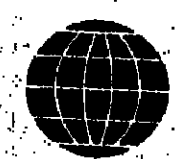
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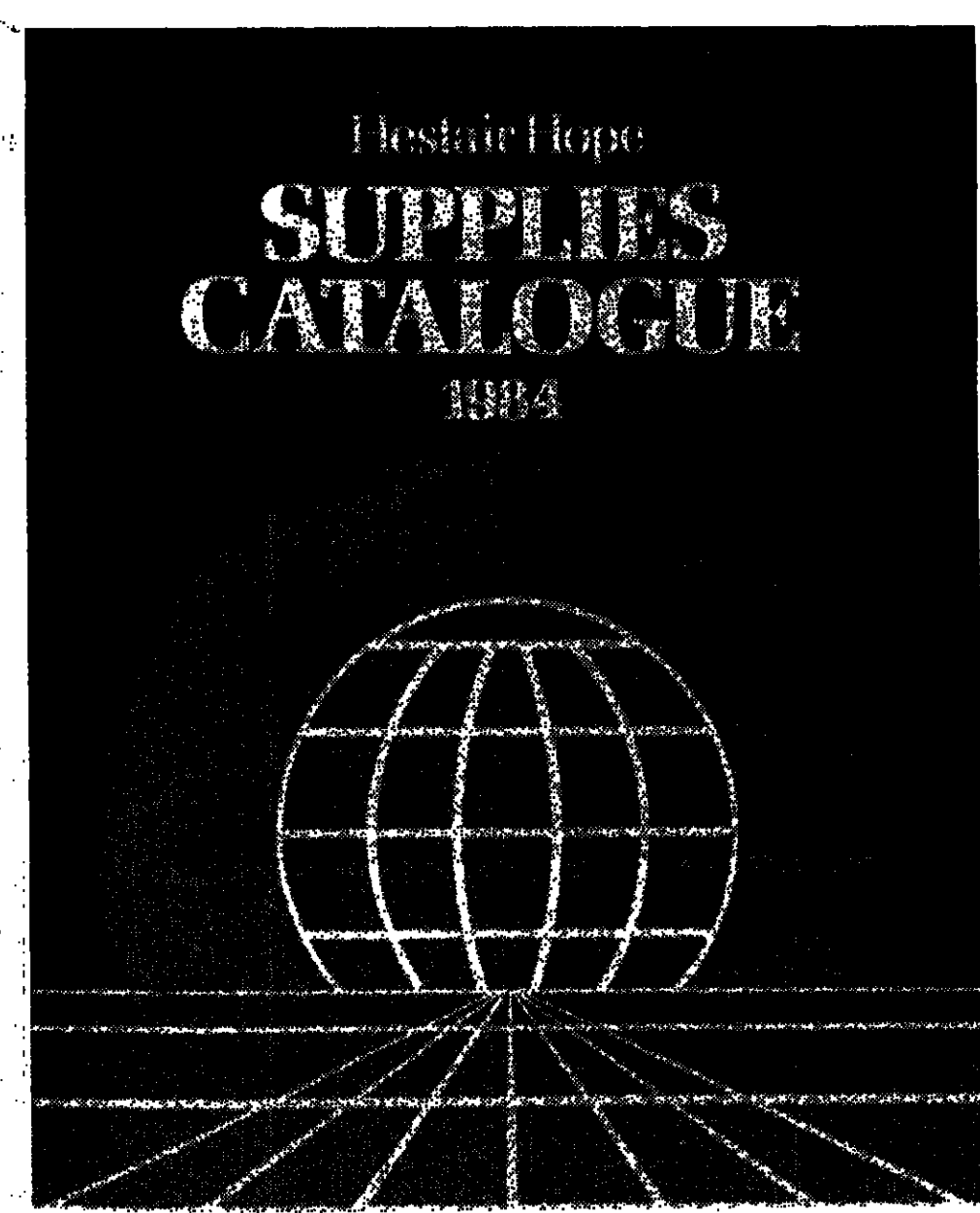
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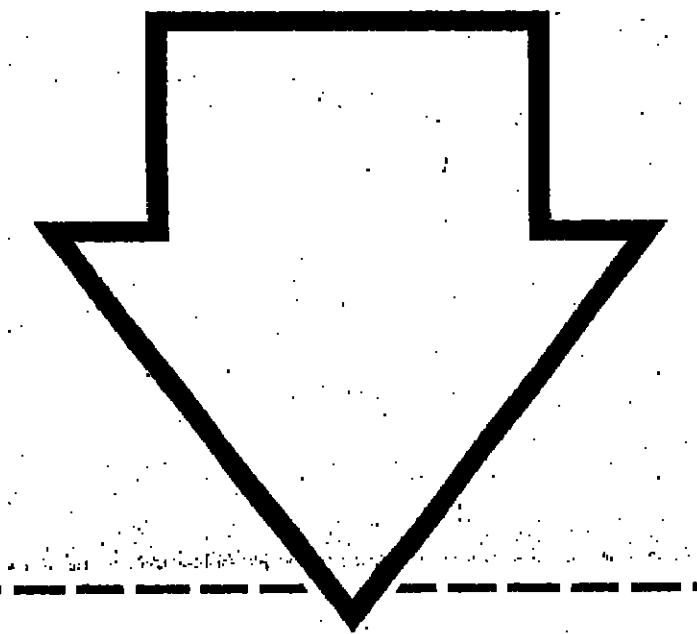
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IS ANY OTHER SUPPLIER OFFERING SUCH A GOOD DEAL?

Invest teachers' pension money, union urges

by Richard Garner

Radical changes in the way the teachers' pension scheme operates have been proposed by the National Association of Schoolmasters/Union of Women Teachers.

The union wants the contributions to be invested privately - with local authority and employee representatives monitoring the scheme.

It told a government committee of inquiry that the present system - under which the contributions are nationally invested and are reviewed by a government actuary every five years - has led to a "saga of financial mismanagement that has lost the teachers and rate-payers £11,700m since 1956."

The inquiry, under the chairmanship of Mr Norman Fowler, Secretary of State for Social Services, is considering the future development of pension schemes.

The union argues that the actuary has assumed an artificially low rate of return if the contributions were invested, and that the scheme could be improved with greater investment flexibility.

It wants a real fund to be established to invest the pensions' contributions privately, and is asking the Government to put the estimated cumulative loss on the scheme of £11,700m since 1956 (the last time teachers' contributions were increased) into the fund to launch it.

It argues that the money raised from contributions has been ploughed straight back into the Treasury.

Mr Fred Smithies, general secretary of the NAS/UWT, said: "A solution as radical as this is unlikely to be favoured in the teachers' panel of the super-annuation working party (a body made

up of all the teachers' organizations to monitor the pensions scheme).

"However, we're prepared to take on board the risk... We believe that - given a successfully invested fund - index-linking would be secure as well."

The National Union of Teachers said it was unhappy with the national funding, and had made suggestions to the management advisory group monitoring the scheme for greater flexibility in the way contributions were deemed to be invested.

It is also submitting a paper to the Fowler inquiry - but this is concentrating on the provisions that automatically transfer a male teacher's pension to his widow when he dies, but require financial dependence to be shown before transfer to a woman teacher's widow. The inquiry has asked for comments by the end of the month.



Free wheeling: the changing role of women in Britain is the theme of a British Council preview exhibition which opens at the Royal Festival Hall next Friday. The exhibition "A Women's Place" illustrates the enormous change in the social and economic life of women in Britain this century. It features work by many leading photographers with special sections on history, education, family, work, protest, leisure and sport. The picture seen here is of workers at the Mosquito Bikes Cooperative, Hackney, London. The exhibition, which will eventually tour abroad, is on until April 30.

Cabinet delays decision on future of ILEA

by Biddy Passmore

The Cabinet deferred a decision on the future of the Inner London Education Authority last week because members demanded more details about the scheme for a directly elected body. The delay may well mean that if direct elections are finally approved, they could not be held for the first time until 1986.

But it is understood that there is still general support in the Cabinet principle of replacing the Inner London Education Authority with a directly elected body rather than a joint board of the boroughs when the Greater London Council is abolished next year.

A minority fear that it might prove expensive and would set a dangerous precedent, making it difficult for the Government to defend its decision to set up unelected joint boards for other services, like fire and the police.

Now further work on the scheme will take place within the Departments of Education and the Environment

and the Home Office. Particular points that still need to be settled are the authority's size - the suggested total of 58 members may be too big - the method of election and electoral boundaries, and the authority's funding.

There is apparently some doubt, for example, whether existing law would allow an authority superimposed on existing rate-raising authorities - the inner London boroughs - to bill separately for its own rates.

Unless these details are worked out and approved by the Cabinet very soon, it seems unlikely that the necessary changes could be incorporated in the paving Bill for the abolition of the Greater London Council, which should be published within weeks to reach the statute book by the summer.

That means the Inner London Education Authority would have to survive in shadow form for a year, from 1985 to 1986, until the first direct elections could take place.

New fellowship

The Mary Glasgow Language Trust has set up a teacher fellowship, tenable for a three-month sabbatical attachment at the Language Teaching Centre, at York University.

Founded as a tribute to the late Mary Glasgow, the pioneer of language education who died last November, the fellowship is a means of giving a practising school linguist teacher a spell away from the classroom.

Strike warning

Gwent County Council has been warned by the National Association of Teachers in Further and Higher Education that it could face a national dispute if it persists in its attempts to increase college lecturers' class contact hours from next September as part of a move to save £100,000. A deputation from NATFHE told officials this week that members would strike if necessary.

Sort out views on exams, firms told

by Nick Wood

Sir Keith Joseph, the Education Secretary, has asked employers to unscramble their views on the examination system and to tell him what information they want on school-leavers.

A letter from Sir Keith to 18 business organizations says that employers are giving parents the wrong message about the importance of exams.

Because firms use them as a "first sift" for jobs, parents understandably see them as a passport to work. Schools then come under pressure to achieve such successes at the expense of other skills and qualities.

"These facts distort the significance which should be attached to examinations and discourage schools from giving proper attention to the development of important skills and personal qualities at all levels of pupil ability," the Education Secretary says.

He suspects that the message filtering back to parents does not reflect employers' true opinion of the exam system and that they share his misgivings about the extent to which it provides a reliable picture of young people.

Sir Keith reminds firms about the Government's plans for records of achievement for all school leavers which, he says, are intended to remedy this drawback.

"I am writing to... invite your views on the 'scrambled message,'" Sir Keith says. "I hope that you may be able... to let me know what you really need to find in school leavers."

Welsh discount merger offer by NAS/UWT

by Bert Lodge

A leading official of the strongly nationalist Welsh teachers' union, UCAC, this week discounted suggestions of a possible merger with the National Association of Schoolmasters Union of Women Teachers.

Mr Rhys Wyn Parri, general secretary of the Gwynedd region - where almost one third of the union's membership is concentrated - was replying to proposals for recruitment in a confidential paper circulated by Northamptonshire NAS/UWT.

This pointed out that at a time when falling rolls in secondary schools were causing a drop in membership the union should be looking at the possibility of mergers with smaller teacher organizations.

These included the Scottish Sec-

ondary Teachers' Association, the Association of Polytechnic Teachers and the National Association of Teachers of Wales (UCAC).

But Mr Parri said: "Falling rolls is obviously having a great effect on the NAS/UWT with its concomitant loss of membership. Hence the idea to include us in their imperialistic schemes. 'It ought to be understood, though, that these patronizing approaches had no attraction for UCAC which is not affected by falling rolls. On the contrary, our membership figures exhibit regular increases even in the face of a reduction in teacher numbers.'"

A further objection, he said, was the record of the NAS/UWT in opposing the establishment of certain Welsh language schools.

'Legalize cannabis' call puts job in jeopardy

A 50-year-old supply teacher has been given an ultimatum by Labour-controlled Newham Council after writing in a church magazine in support of the legalization of cannabis.

Mr John Guy, who has worked as a supply teacher in the borough since 1979, has been told he must not write in favour of legalizing the drug and must not smoke it, if he is to continue for the authority.

Officials of the National Union of Teachers, Mr Guy's union, are con-

testing the order. A spokesman said: "What teachers do in their own time is up to them so long as it doesn't interfere with their job."

He said Mr Guy had told the union he had never smoked cannabis in his country because it was illegal - and had smoked it only in parts of the world where it was not banned. He described the conditions attached to Mr Guy's continued employment as unacceptable. No one at Newham Council was available for comment.

Doctor's plea for pill confidentiality

by Joanna Lyall

Teenagers who have a responsible attitude to their own sexuality will be harmed by moves to restrict prescribing of contraceptives to the under-16s, according to a leading family planning doctor in Glasgow.

The campaign to restrict doctors' freedom to prescribe contraceptives to under-16s in confidence would not dissuade girls from having intercourse but could deter them from seeking advice, said Dr Elizabeth Wilson, coordinator of family planning services for the Greater Glasgow Health Board.

Last year, 87 under-16s approached Glasgow's central family planning clinic for advice and more than half of them refused to let their parents be informed. Thirty of the girls admitted that they were already having unprotected intercourse. Twenty-two had approached the clinic because they were planning to have intercourse.

"If these girls couldn't rely on complete confidentiality they probably wouldn't approach us at all," said Dr Wilson, addressing a meeting of

nized by the medical group Doctors for a Women's Choice on Abortion. "As it is we can support and counsel these teenagers at a very vulnerable time."

Dr Wilson, who has worked in family planning for 20 years, said that teenagers could sometimes be persuaded that they were not ready for sex or that they should involve their mothers in the discussion. But as the doctor was often the first to be approached, confidentiality was crucial, she said.

Dr Judy Bury of the Brook Advisory Centre, Edinburgh, said that of 100 under-16s attending the clinic last year, two-thirds had informed their mothers within three months of their first visit. Any attempt to lighten up the present DHSS guidelines which allow doctors to prescribe contraceptives "in exceptional circumstances" without their parents' consent would mean these children "would never approach a clinic," said Dr Bury.

Fear of the attitudes of parents and teachers meant that very young girls often tried to disguise a pregnancy,

which accounted for a high rate of late abortions in the under-16s, Mr David Paltin, reader in obstetrics and gynaecology at St Marys' Hospital Medical School, London, told the meeting.

The British Medical Association has written to every MP enclosing a leaflet which explains why doctors need to maintain their present freedom to prescribe to under-16s without informing the parents. The leaflet points out that in some cases the doctor may be the only responsible adult to whom a girl may turn.

Dr John Havard, BMA secretary, said that forcing doctors to inform parents would not stop girls from having sex but would simply discourage them from seeking medical help. "This would lead to an increase in unwanted pregnancies, the consequences of which can be very serious for young girls," he said.

In 1982, there were 1,169 live births to under-16s and 3,845 abortions in the same group in England and Wales.

Four hundred headteachers, most from the maintained sector, gathered in the awful splendour of Oxford University's Examination Schools last weekend to hear about a revolution in the university's admissions procedures.

From 1985, the "Oxbridge term" - seen by public schools as the jewel in their crown, and by state schools as a privilege they cannot afford - will start to disappear. For applicants to the country's oldest university will no longer be allowed to sit the special entrance exam after their A levels. They will either have to sit the exam before A levels, in their fourth term in the sixth form (Mode E), or opt for a procedure depending on A levels and an interview, in some cases with extra written tests (Mode N).

Other radical changes are that all candidates, whatever their mode, will apply at the same time through UCCA and be interviewed in the first half of December. And they will no longer be obliged to express a preference for a college. They will be able to submit an "open application", which will then be distributed evenly among colleges by computer.

These reforms, proposed by a committee chaired by Sir Kenneth Dover, president of Corpus Christi College, are designed to make the system fairer and simpler, especially for applicants from state schools. They were finally agreed last November by "an overwhelming majority" of colleges. The conference was called to explain, not to discuss them. But Dr Nell Tanner, the maverick admissions tutor of Hertford College, tossed a spanner into the works.

A week before the conference, he circulated a paper to his fellow admissions tutors and to all 400 school representatives who were to attend urging a quite different set of reforms - and inviting them to a fringe meeting to discuss them.

Dr Tanner's plan is for colleges to interview candidates during the Easter vacation, when they could either make offers or refer candidates to the entrance exam, which they would sit in June. This would be a more sophisticated version of the present "special" papers, set and marked by Oxford and Cambridge tutors but administered by the A level boards and based on core A level syllabuses.

It was the timing, as much as the content, of his paper that incensed his colleagues. They felt it was calculated to confuse what was meant to be an opportunity to clarify the Dover changes and would lead to fundamental questioning of reforms on which they had already agreed. Some suspect Tanner's ultimate aim is to get rid of the separate Oxford exam altogether.

However, he insisted last weekend that he was not out to wreck the Dover reforms and that his paper was meant for the longer term. "Hertford is not going to declare a mutiny", he told *The TES*. The college would go along with the new system for the time being but felt it would not last.

Dr Tanner is convinced that Cambridge - which is just setting out, once again, on the thorny path towards admissions reform - will plump for a sixth term exam, thus making an Oxford change essential anyway. And he feels the Dover reforms have been rushed through, without enough consultation with schools.

That belief was fortified by the turnout at his "fringe meeting" - some 150 heads, most of them in favour of his scheme. But, rather embarrassingly for a man who has traditionally been the darling of the maintained schools (Hertford pioneered "matriculation offers" in the 1960s) he now finds it is public schools who are lending him strongest support.



Sir Kenneth Dover, chairman of the committee which proposed the reforms.

Oxford colleges have been dismayed by an attempt to rewrite the radical new admissions procedures they gave their blessing to only last November. Report by Biddy Passmore.

Tanner's change



Dr Nell Tanner (left) claimed he was not out to wreck the Dover reforms.

Balliol don said firmly: "Most don't choose for good reasons anyway." And Lord Crowther-Hunt, rector of Exeter College, added: "We're looking for the best people we can lay our hands on. We're not looking for old members' sons or people from schools who have traditionally sent a lot - sometimes they produce duds."

The best advice for schools seemed to be to put as many candidates as possible in for the written exam so that, if they failed, they could have another bite at the cherry after A levels. Lord Crowther-Hunt suggested that Mode E - the written exam - might in any case suit state school candidates better because the interview played a smaller part.

The new system will be reviewed in five years' time but many Oxford dons think it highly unlikely they will be forced into a change by Cambridge.

They are doubtful of their sister university's ability to agree to anything ("very fissionous, Cambridge"), pointing out with some relish that two Cambridge colleges - Emmanuel and Fitzwilliam - have just declared UDI and opted to make all their offers conditional on A levels. Even if Cambridge does agree on a change, it may now decide to fall in with Oxford's plans rather than vice versa.

Mr Robson Fisher, for instance, former head of King Edward VI School, Birmingham, and now deputy secretary of the Head Masters' Conference, and the Secondary Heads Association, said during a conference session that a fourth term exam would "distort the curriculum". It was an emergency solution that had not been thought through and he hoped the university would very seriously consider a sixth term exam in two or three years' time.

The head of a maintained school, however, instantly put the opposite view. He found A levels narrow, and welcomed the Oxford exam as a way of broadening the curriculum. Indeed, judging by the general tone of the conference, maintained schools and colleges have been won over. They appreciate the aim of the changes, even if they worry about the detail. Headteachers received assurances

from a panel of college principals and admissions tutors that specimen exam papers in all subjects would be prepared as quickly as possible, that candidates' mode of entry would make no difference unless the college had previously stated a preference and that those who expressed no choice of college would be treated on a par with those who did.

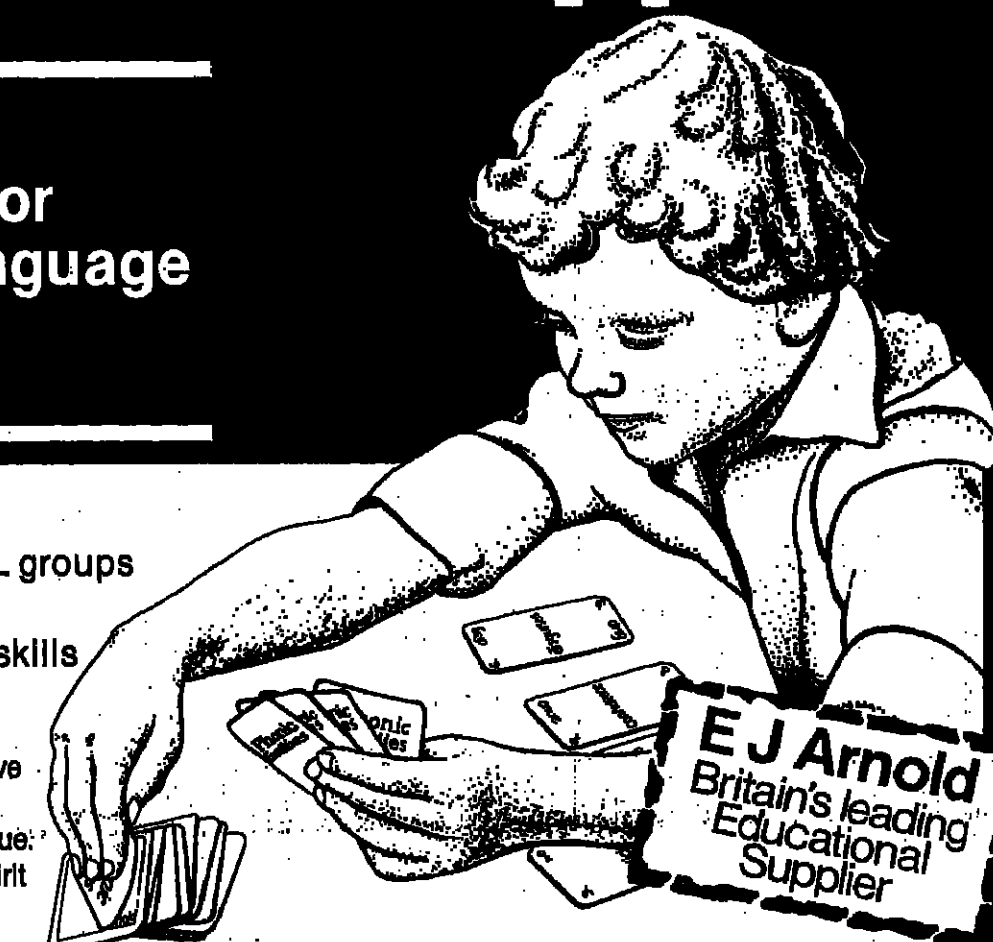
"I don't care two hoots if somebody puts us as first choice or not", one

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PRIMARY

Sir Keith raises hopes of cash aid for rural schools

by Julia Hagedorn

Education support grants could be used to enrich the curriculum of small rural schools, particularly by financing more peripatetic science teachers, Sir Keith Joseph said this week.

The Education Secretary told a London conference held by the National Association for the Support of Small Schools that he would be discussing this possibility with local education authorities once the Education Support Grant Bill becomes law.

Sir Keith said school closure plans posed great dilemmas for Ministers and took up a lot of their time. Each case was looked at individually, he said.

Finance was rarely the decisive factor, but it was important. Other

factors to be weighed up included the danger of a village being isolated, the curriculum on offer, the popularity of the school, the proximity of alternative schools, and the expense of transport.

"But we have to recognize," Sir Keith continued, "that the fall in population means an increasing surplus of places in rural areas and every empty place means money that could be spent on teachers, books and equipment."

There were a million fewer children at school than five years ago, he said, and most of the fall had been at the primary level.

Sir Keith said that the Conservatives had never made an election pledge to

protect spending on education. Savings must continue to be made, he said.

He admitted that some local authorities were under pressure financially but others were still failing to distribute money properly.

Ms Sheila Addison, senior inspector for primary education in Northamptonshire, said her authority had not closed a school for eight years. Having accepted that small schools were valuable, the authority had embarked in 1974 on a three-year pilot project to provide them with extra support and resources.

"There is no such thing as professional isolation in these schools now," she said.



The first team of primary experts from China to come to Britain are pictured visiting Loughborough Endowed primary school, Leicestershire. The group of the recently spent three weeks touring schools in Scotland, Birmingham, Leicestershire, Nottinghamshire and Lincolnshire.

In Lincolnshire they were particularly impressed by the functioning of schools with fewer than 50 pupils - more than half the primary schools in China have similar numbers. The group included two primary heads, two directors of primary education, and a representative from the Ministry of Education.

NEWS

Pupils show bias against Irish

by Diane Spencer

The Irish are the least popular minority group, followed closely by Pakistanis, according to a "stereotyping" exercise in a multiracial East Midlands comprehensive school.

The study also revealed that all pupils, no matter what age or nationality, thought more highly of people from their own ethnic group.

This finding differs from studies carried out in the mid-1970s which showed that, in a predominantly white society, black children held derogatory views of their own people.

This study, carried out by Dr K C

Thomas of Nottingham University, looked at all pupils of the following origins, on the roll of an 11-16 comprehensive: white English (238 boys and 190 girls); West Indian (133 boys, 117 girls); Indian (50 boys, 51 girls); and Pakistani (40 boys, eight girls).

They were asked to grade adjectives such as peaceful, clever, dull, dirty, cheerful, violent or mean, to describe seven different groups: English, West Indian, Germans, Indians, Jews, Irish and Pakistani.

The English came out best, and Pakistanis and Irish the worst. The

English and the West Indian pupils rated Pakistanis the lowest.

Dr Thomas thought this bias might be caused by the desire of Pakistanis to retain their own distinctive culture. Media coverage of Northern Ireland's trouble could account for the negative views of the Irish, he said.

The Jews were given the most neutral rating of all. This was in marked contrast to a similar study by researchers in 1975 which found that negative stereotypes of "untrustworthy and mean" were prevalent.

Pakistani pupils did not see Indians in a negative light, but Indian pupils thought Pakistanis "mean and violent".

The reversal of the previous trend of "self rejection", dominant in the mid-1970s, could be explained by an increase in "black pride", Dr Thomas says. But he also thinks the social climate of the school played an important part.

The lack of "negative own race group stereotyping" could be attributed to the promotion of true social integration in the school, he said.

Nuffield sets team

Details of the Nuffield inquiry into modern languages in further and higher education were announced last week.

As announced in *The TES* in November, the inquiry is to be directed by Miss Sheila Browne, principal of Newnham College, Cambridge, who until recently was Senior Chief Inspector at the Department of Education and Science and before that was a lecturer in French at London and Oxford universities.

Miss Browne will be helped by an advisory committee of seven, including Dr Clare Burstall, director of the National Foundation for Educational Research, Professor Philip Thody of the French department at Leeds University, and Mr John Trim, director of the Centre for Information on Language Teaching. Dr Marian Owen will act as research assistant.

The two-year project will cost the Nuffield Foundation about £50,000.

East-West liaison promoted

A plan to promote closer cooperation between East and West schools has been agreed last week, at a summit of international teachers' leaders at the National Union of Teachers' training

centre at Stoke Rochford. Under the plan, the unions will provide more facilities for exchange visits of pupils and students in groups or individually.

C of E school handover plan

by Bert Lodge

Anglican schools could be handed over to Muslims or Sikhs for a period of a few weeks of the year, as a way of easing the burden of the Church's declining numbers, the Church's leading education officer has suggested.

Given that one aim of Anglican schools is to provide a "Christian education", the suggestion is a bold one.

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Given that one aim of Anglican schools is to provide a "Christian education", the suggestion is a bold one.

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From *The TES* March 16

Secular alarm at C of E takeover plan

by Bert Lodge

A secular group has condemned proposals that Anglican schools with a majority of non-Christian children should be handed over to Muslims or Sikhs for a few years.

The proposals were made in a Church of England document last week.

Now the National Secular Society says it views this proposal with alarm. In a statement it adds: "It is surely bad enough that there should be Anglican, Roman Catholic and Jewish schools that segregate children according to their religious background. The divisiveness that this causes (as

is seen at its worst in Northern Ireland) would be exacerbated by the addition of schools for immigrant religions with segregation on the basis of skin colour as well as creed."

"Indeed many responsible immigrant leaders themselves realize the danger of this."

The Society says that 85 per cent of the capital cost and 100 per cent of the running of church schools are paid for by the State. "In that case the C of E has no moral right to hand them over to any organization except the local education authority," says its statement.

Ulster report for 1982

Nearly £500m was spent on education and libraries in Northern Ireland in 1981-82, according to the latest annual report by the Department of Education for Northern Ireland.

In January 1982, the total number of pupils enrolled in grant-aided (the equivalent of maintained schools in England and Wales) in the province was 357,969, some 4,500 fewer than the previous year, the report shows. The number of full-time teaching posts approved by the department for the academic year was 19,000.

Most schools in Northern Ireland are still selective. Of the 28,600 pupils

eligible to transfer to secondary school in September 1982, four-fifths (some 22,800) took part in verbal reasoning tests in English and mathematics to assess their suitability for grammar school.

Just over 5,800 got grade A, thus earning the right to a free place at a grammar school, 2,800 got grade M, qualifying for a free place if one was available, and 14,100 got grade G, which meant they would have to pay for a grammar school place.

Education in Northern Ireland in 1982. HMSO, price £3.29 net.

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This Spring sees the launch of 'Energy Study UK', a new competition for schools, sponsored by British Gas, Conoco and the Electricity Council on behalf of the Energy Efficiency Office of the Department of Energy.

'Energy Study UK' is timed to run as an Autumn term project for 11-15 year old middle and lower secondary pupils in both the maintained and private sectors.

Drawing on a wide range of disciplines, school teams will be asked to study their own local

community's use of energy, interpret the data and present a multi-media package for improving energy efficiency.

Access to a computer is required since the project involves using computers software, specially designed by British Gas and included in the teacher and student competition packs supplied free to all participants.

Selected by panels of judges, thirteen regional winners will qualify for the National Final and the chance to win £1,000 for their school.

Individual prizes for team members will also be awarded.

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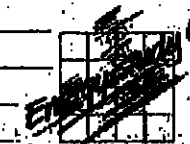
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Nick Wood reports from one of the first teachers' conferences on biotechnology

Medical advances help inject interest

Telling children about the staggering advances in the prevention of crippling inherited diseases such as Huntington's chorea and muscular dystrophy is an ideal way of introducing them to biotechnology, one of the first teachers' conferences on the new science was told this week.

Professor Peter Harper, a specialist in genetic counselling at the Welsh National School of Medicine, Cardiff, told more than 300 teachers meeting at the city's University College that in the past 18 months there has been remarkable progress in identifying the genes on the human X chromosome and linking malfunctions to specific diseases.

DNA recombinant techniques, one of biotechnology's most promising in-

novations, were "revolutionizing" doctors' understanding of the major inherited diseases such as phenylketonuria - which causes severe mental handicap unless treated by special diets - and blood disorders like sickle cell disease and haemophilia.

New screening techniques now made it possible to identify couples who were carriers of such disorders and to assess the chances of passing them on to their children.

"Whatever level of education one is dealing with, inherited disease is something people find interesting," he said.

Traditional methods of teaching genetics are "not very exciting" but "inherited diseases have a relevance

and immediacy that help students to appreciate the underlying principles". Other speakers said that children should be taught about the rapidly growing applications of biotechnology in agriculture and industry.

Dr Rod Greenhields, director of the Welsh biotechnology centre in Swansea, described how Brazil since 1975 had built over one million cars to run on ethanol produced from sugar cane. Besides cutting the country's oil bill the project had boosted the supply of hydrocarbons for industry.

Dr Greenhields said the world was on the threshold of a revolution in its industrial processes. Today, for instance, only six enzymes are being exploited commercially, but this alone

had been enough to generate exponential growth in sales over the last 20 years. A further 300 enzymes were now ready for commercial use.

Of the thousands of micro-organisms with industrial potential, only 50 were currently being used in this way.

With the world population set to more than double to 10 billion in the next 25 years, biotechnology would have a key role to play in meeting shortages of food, energy and raw materials and in reducing pollution.

Teachers had a duty to prepare young people for these changes. "They will be among this 10 billion and they will need to understand biotechnology and be involved in it to have jobs and survive," he said.

IN BRIEF

Government aids exporters

Mr Bob Dunn, education junior minister, has pledged the Government support for export initiatives launched by the educational equipment industry.

Mr Dunn was speaking to a group of British exhibitors at the world's largest educational equipment exhibition, Didacta, in Basle, Switzerland.

He said that the Department of Education and Science's Microelectronics Education Programme had not only been closely working with a number of companies in the electronics field, fifteen of which were exhibiting at Didacta under the group title "The Great British Micro Show".

Heads' courses

A new programme of management training for headteachers and other senior school posts has been announced by the College of Teachers.

The courses will be based at Waverhampton Polytechnic, Bury Grosvenor College, Lincoln, a Rolle College, Exmouth, and will be held on Saturdays and during week of the summer holidays.

Qualifications to be gained are from the Associate of the College of Preceptors through the graduate certificate to the post-graduate qualification of the Diploma in Advanced Study of Education.

Volunteers sought

There has been a boom in demand for British teachers and teachers' aides by countries in the developing world. The Voluntary Service Overseas reports a 20 per cent rise in requests and expects that half of the 800 posts will be filled over the year.



Topics such as cell biology could be given a biotechnical slant.

Science staff 'need more guidance'

Exam boards should rewrite science syllabuses to include specific mention of biotechnology, give teachers detailed guidance on how the new topic should be taught and set questions on it, one of the country's leading authorities on biotechnology in schools said this week.

The advice came from Mr Jim Teasdale, a biology teacher from Sunderland who has just completed a one-year secondment funded by the Department of Industry at University College, Cardiff, to investigate classroom coverage of the science.

He said that questionnaires he had sent to biology department heads in 20 L.A.s showed that many teachers were keen to bring biotechnology into their lessons but had been back because it was not on the syllabus.

Yet even without extra funds and new syllabuses, schools could do more to get biotechnology off the ground, Mr Teasdale told the conference.

Existing science courses contained

topics such as antibiotics, clones and microbes which were directly relevant to biotechnology and teachers could make pupils more aware of the subject by highlighting these aspects.

Other topics such as cell biology, enzymes and evolution could be given a biotechnical slant.

Mr Teasdale also listed the exam boards that already have biotechnology options within their syllabuses.

The Welsh board has a medical and industrial biology topic in its A level biology syllabus; the JMB's environmental science courses at O, AO and A level have "many" topics relating to biotechnology; the East Anglian CSE board has a CEE course with a section on applied biology; the Southern Universities board has an applications option in A level biology; Cambridge's A level biology and social biology syllabuses refer directly to biotechnology and the AEB covers such topics in its integrated science syllabus.

Lords hear call for ban on polytechnic arts courses

by Biddy Passmore

A strict division of labour in higher education, with an end to arts teaching in polytechnics and degree courses in further education colleges, was urged last week by Lord Annan, former vice-chancellor of London University.

Opening a Lords debate on further and higher education, he said Britain could no longer afford to run a monolithic university and polytechnic system from public funds. On the Continent, it was recognized that the large majority of institutions would offer those with modest attainments courses that led to modest qualifications.

He predicted that, in future, research in many universities would have to be supported by private funds. And he looked forward to the day when polytechnics were no longer "artificially" but devoted to strictly vocational courses.

"Should there really be a department of philosophy in Middlesex Polytechnic?" he demanded rhetorically. "Should anthropology be taught in Oxford Polytechnic? Should a single

further education college teach for a degree? Surely not."

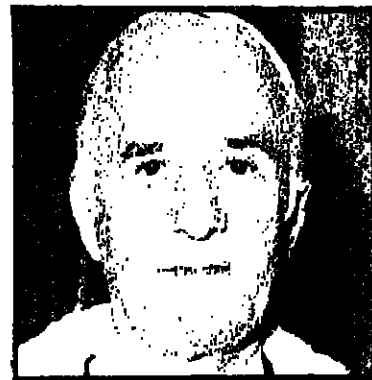
The strategy for the next 20 years must be to make higher education less costly and to make access to it easier, he said. But that could only be done if it was acknowledged that there were different kinds of institution doing different things.

Lord Annan blamed governing bodies for institutions' lack of responsiveness to the "hints and initiatives" which came from Whitehall. Governing bodies did not govern, he said, and the governance of polytechnics was "sometimes subject to disgraceful political bias".

"In the case of the Polytechnic of North London, I think that it would have been more revealing if the Secretary of State had investigated its governing body rather than its department of sociology, so scandalous has been its mismanagement of the polytechnic's affairs over the years," he declared.

That polytechnic also came under attack from Lady Cox, former head of the sociology department, who criticized the department's practice of circulating information about examination questions three months before finals in the form of "revision themes". The Council for National Academic Awards had recommended the ending of this practice, she said, but had given way in the face of "direct action" from students.

Lord Wilson of Rievaulx, making his maiden speech, pleaded for his brainchild, the Open University, to be protected from the ravages of the Treasury. Over the next three years to 1986, the plans laid down by the authorities showed that the university would have to cut its spending by



Lord Annan

£13.5m, he said. "What the statistics will not show," he added, "are the disappointments and broken prospects of a generation of students whose potential contributions to British industry and to British inventiveness and competitiveness in a growingly competitive world are being snatched away, from what industry and the education process could provide, by the Treasury, which could not, in my view, in terms of the problems I am describing... with any marked success, run a fish and chip shop."

Lord Glenamara, a former Labour Education Secretary, condemned the "education apartheid" in higher education between universities and polytechnics, comparing it to the treatment of grammar and secondary modern schools after the Second World War. There should be one or two outright mergers between polytechnics and universities at once, he said, more sharing of resources and a gradual merger of the University Grants Committee, the National Advisory Body and CNA.

Private cleaning fails, teachers say

by Richard Garner

Two-thirds of schools in Dudley have reported a general lowering of cleaning standards since the Conservative-controlled authority put out their cleaning to private contractors, says a survey published by the local branch of the National Union of Teachers.

The survey, which was carried out by a local NUT official, Mr Andrew Johnson, who is standing for election to the union's executive this spring, concludes that the Dudley experiment in privatizing school cleaning has been a "disastrous failure".

It acknowledges improved standards in 37 of 96 schools, since an initial survey conducted last October. But it adds that in one secondary school, a fifth year examination class had to wait for 50 minutes outside a classroom while a worker cleaned the room.

"Teachers in many schools are now at the point of despair," it says. "While not wishing to disrupt their pupils' education by closing classrooms or schools, the situation in certain schools is now so desperate that such action has been forced on teachers."

He added that the leader of the council, Mr Jack Edmunds, had met the managing directors of the firms 10 days ago and was planning to meet them again on April 3.

More time for the bomb

Science teachers should set aside six to eight double periods in which to teach fourth and fifth-formers about nuclear weapons, it was claimed this week.

"The issue is too important, and too much a matter of science to be left to Teachers for Peace groups. Friday morning assemblies or summer term peace education weeks," Mr Jerry Wellington, a physics lecturer from Sheffield University, argues in the latest issue of *The School Science Review*.

Mr Wellington says that detailed treatment of the history, science and politics of the bomb need take up no more time than more mundane topics such as physical optics or electrostatics. Science syllabuses should be slimmed down to make room for the new material.

"The only way to ensure that the facts and issues involved with nuclear weapons are professionally taught is by writing them into mainstream syllabuses."

"The subject could, arguably, be squeezed into many existing syllabuses by pushing out other topics which would be no great loss."

The Cadbury's National Exhibition of Children's Art now entering its 37th year is once again looking for talented young artists' work to display.

The best art and craftwork will be shown at six major galleries around Britain next year and each child whose work is selected for exhibition will receive a certificate (in the 1983 exhibition more than 800 works were selected).

Awards totalling over £12,000 can be made to pupils and schools at the judges' discretion, covering art, craft and poetry. In addition, the Cadbury Italian Art Tour can be won by up to six of the most talented children. A distinguished panel of judges headed by Dr. Harold Riley will select work from four age groups, ranging from under 7 to 17 years of age.

The closing date for entries is 16th April 1984. Please complete the entry form below and ensure that each painting or craftwork bears a signed statement by a teacher or parent that the work is original and unaided. This should be written on the back of the painting or adhered to, tied to or enclosed with each craft entry.

For full rules and conditions of entry, if required, please send an SAE (22cm x 15cm or larger) to: Cadbury's National Exhibition of Children's Art, Granby, School Lane, Dunham Massey, Altrincham, Cheshire WA14 5SZ.

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Micros are Fun is an introduction to graphics, sound and animation and includes a wide range of projects. Ideas for Micro Users contains more simple project ideas, how to remedy common mistakes and improve programs. Projects for Programs takes a detailed look at four useful types of programs. Introduces ARRAYS and explains the sub-routines as each project develops. Micro Knowledge is written for those with some experience of micros and explains simply how and why the micro interprets some commands and provides useful background knowledge for young programmers.

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Chinese lessons may be lost

Mandarin will soon disappear as a subject from an Abingdon secondary school which has prided itself on its wide linguistic repertoire.

Over the last year, and the need to cut back on staff, have contributed to the imminent removal of the language from the curriculum at the John Mason school.

The demise represents the end of an era at the school, which introduced the subject 20 years ago, to replace the classics. Mr Chris Owen, the headmaster, said: "This is a subject which has been gathering momentum over 20 years. It's not something you can see disappear without the greatest regret."

But he explained that where the subject had thrived a decade ago, with 70 pupils studying it for O level at any one time, the numbers had now shrunk to about a third of that. And only about three sixth-formers took A level Mandarin.

Russian, German and French are also taught at the school, and Mr Owen said: "Our problem is that with the staffing we're allowed, we can't run exam courses in four foreign languages, without distorting the curriculum."

He said that by Oxfordshire standards, having three languages on offer was "remarkable".

His school, which at present has more than 1,000 pupils, is subject to falling rolls and a reduction in staffing. Over the next two years, six or seven teachers will have to lose their jobs. The teacher of Mandarin, who is on a temporary contract, will not have it renewed after August, although the O and A level students will still be taken through their exams.

Teach-in protest

About 200 adult education students are expected to stage an all night teach-in at the City Lit in London's Covent Garden on Tuesday to protest against what they see as the Government's threat to the capital's adult education service.

Students and staff from the City Lit and other centres will take classes in about 30 subjects from 9.30 pm to 8 the next morning.

The proposed legislation to reorganise the Inner London Education Authority and restrict local spending could produce as much as a 72 per cent cut in London's adult education, say the organizers.

Conferences

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Professor Tom Shorrock
Sir Teddy Weaver
Sir Shirley Williams
Further details from:
Mr James Stevenson
Assistant Secretary
University of Surrey
Guildford GU2 7XH
Tel: 0483 571281

(674)

Union president spells out threat to new headteachers NAHT opposes probation

by Mike Durham

Headteachers would be reduced to "timid and obsequious creatures" if they were obliged to undergo a period of probation, a National Association of Head Teachers' conference was told last week.

Mr John Swallow, NAHT president, told a regional conference in Coventry that the probation idea floated by Sir Keith Joseph at the end of last month would "shackle" heads. "They will just try to please everybody, simply in order to keep their jobs," he said.

Heads should only agree to the idea if it was extended to cover other new appointees to managerial tasks, including executives, education administrators promoted to chief education officer - and MPs who became Secretary of State.

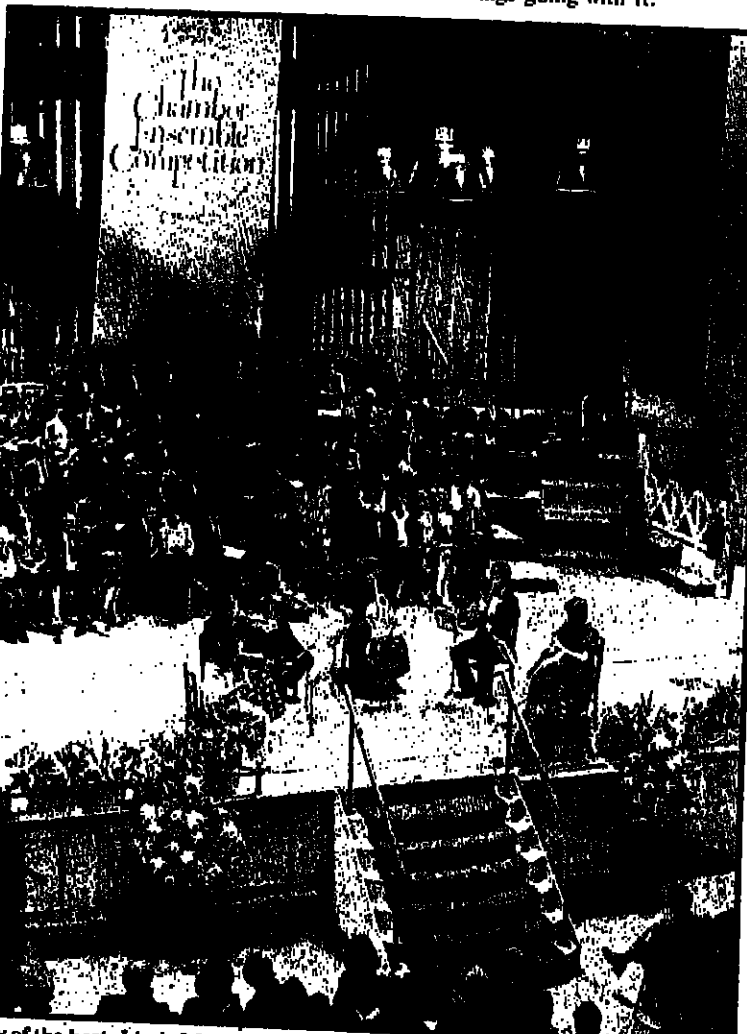
The conference on secondary school management also heard a senior civil servant, Mr Ian Langtry, head of the

teachers' branch at the Department of Education and Science, say that the Burnham discussions on salary structure were edging forward.

"I don't think anybody had very high hopes, but perhaps we are getting somewhere," said Mr Langtry.

But he added that Sir Keith "could never live with" the separation of pay and conditions and would be looking for an outcome which would enable local authorities to "pick and choose" between good and bad teachers. "He'll be looking for methods of fairly identifying the best teachers."

"There must be some clearer understanding than there is at present over just what the average teacher should be doing. I can't see that Sir Keith will ever get interested in the prospect of salary reform, unless he sees all these other things going with it."



Six of the best: Linda Merrick, clarinet, Alan Jones, horn, Cecilia Romero, violin, Julia Robinson, violin, Steven Burnard, viola, and Jane Ridley, cello, form a sextet that were the overall winners of The Chamber Ensemble Competition at The Royal Academy of Music last week.

Councils to air YTS worries

by Biddy Passmore

The Association of Metropolitan Authorities is to hold a national conference to air anxieties about the Youth Training Scheme, the association's education committee agreed last week. It will be attended by representatives of the Area Manpower Boards of all metropolitan areas and will take place in London soon.

It will discuss areas of growing concern among member councils, such as the scheme's funding and the balance between employer and college-based courses. It will also examine issues raised in the Government's recent White Paper, *Training for Jobs*, notably the plan to make the Manpower Services Commission the paymaster of one quarter of work-related courses in non-advanced further education.

The association's response to the White Paper is to be drawn up by an all-party working group. It is chaired by Mrs Nicole Harrison, chairman of the AMA's education committee, and its eight other members include Mr John Penman, vice-chairman of

Brian Sams, the Conservative spokesman from Bexley, and Mrs Alison Cornish, Liberal chairman of Richmond education committee. Meanwhile, the AMA has been joined in its present stance - a complete boycott of the MSC takeover - by the Association of County Councils. Its education committee decided at a special meeting last week to instruct member councils not to cooperate with the plan at regional, local or college level.

But the committee was anxious not to slam the door on discussions with ministers about changing the White Paper proposals. In a statement released after the meeting, Mr Philip Merridale, chairman of the committee, said: "We are opposed to these proposals and want to seek alternatives. We have an open mind about improvements to the present system. Ministers and local authorities have many common aims in this important field and it is vital we maintain this dialogue at national level."

Art classes need to draw on life

Pupils in Kent could make more imaginative use of their environment in art classes, according to HM Inspectorate.

Art teaching in six 9 to 13 middle schools and three comprehensives in the Edenbridge, Longfield and Hoo districts was surveyed by Inspectors in January and February.

Standards varied in the schools in both quality and range. "Too often pupils were given a prescription by the teacher rather than being required to observe closely and with sensitivity," Inspectors noted of one middle school second-year class.

Of another they reported that work was of a simple nature and included many banal models. Elsewhere, Inspectors remarked on "well designed and constructed ceramic slab models from observed houses" and found some work of a high technical standard.

A studio in a secondary school was described as arid and barren, while another had a wide range of objects "available as stimulus material".

Coping with problems

Stockton Wood Infant School, Speke, Liverpool is doing a very commendable job in difficult circumstances, including the drawback of an unusually large size and layout of building, HM Inspectorate found.

It praises the school for its sound, secure and pleasant learning environment, good relationships and for the teachers' hard work. Both staff and pupils cope "extremely well" with the building's inconveniences.

But the Inspectors felt the school could develop curriculum guidelines to ensure continuity and progression. The staff should also consider ways of assessing pupils' progress through the school.

In particular, the language teaching, especially of the youngest pupils, needed to be reviewed. Staffing arrangements in the nursery also needed to be reconsidered. Nevertheless, pupils worked well and the standard of their achievements was satisfactory overall.

Results show hard work

Danbury School, Oxfordshire, is a "hard-working school with a loyal staff and student population", HM Inspectorate says of the 2,200-strong 11-19 comprehensive.

Between them they have created friendly relations and a work ethos which produces almost invariably sound and often distinguished results. But, Inspectors warn of a need for professional support and refreshment for some staff and "sometimes for greater clarity of leadership".

Generating wastepaper

The art of communication was taught in schools, Mr Cyril Foster, of a National Development Centre for Handicraft Training, told the conference.

"We're still far too fond of blue paper. Most of us spend a lot of time sending out newsletters, circulars or information sheets - and how many of us walk the corridors picking them off the floor afterwards?"

Mr Foster also described a school's loudspeaker system as like a disembodied voice. "Children didn't listen. The staff didn't like either."

And he said schools should put more effort into a dialogue with the community outside.

But he was unable to recommend ideal method of getting the message across, either within schools or between the school and its community. "I don't believe there is any one made technique," he said.

HMI reports

HMI reports are available free of charge from the Department of Education and Science, Publications Dispatch Centre, Honeywell Lane, Slough, Middlesex HA7 1AZ. Available from L.E.A.s.

Examination results at O level were found to be below average and the absence of any higher grades at A level is disappointing, the report says.

A survey of art in six 9-13 middle schools and in three 13-18 comprehensive schools in Kent. DES.

Balance is needed

St Mary's High School, Chesterfield, a Roman Catholic voluntary aided comprehensive, was apt to see its special role as protecting pupils from the more unsavoury aspects of modern society, say Inspectors.

They suggest a balance needs to be struck between protection from society and preparation for it. "At present the school may be putting undue stress on the former," they say.

There was also evidence of narrow teaching and learning strategies, according to the Inspectors, with a tendency to a passive approach by pupils and initiative and responsibility hardly encouraged.

More in-service training for staff was needed. Two-thirds had taught for five years or less, and the school had a high proportion of part-time staff.

But there is praise for the school's pleasant site, attractive new building and well-balanced intake.

Temporary staff rights demanded

Thousands of teachers face the prospect of unemployment every 12 weeks or so, Mrs Marie Patterson, who chairs the TUC's women's advisory committee, told the conference.

In her address, Mrs Patterson said that temporary work was now "actually becoming almost the norm in certain work places".

Later, Ms Jean Farrell, the National Union of Teachers' women's officer, told delegates that the number of fixed-term contracts being issued to teachers had been growing for the past five years.

Latest figures showed that 96 per cent of all those on part-time fixed-term contracts were women - 5,027 as opposed to 230 men - as were 81 per cent of teachers on full-time fixed-term contracts - 4,412, against 1,060. Women made up only 59 per cent of the profession as a whole.

She successfully moved a motion from her union calling on the TUC's general council to press for changes in employment legislation to give those



Marie Patterson

on fixed-term contracts redundancy and unfair dismissal rights.

"Local education authorities are in a fortunate position in that they are able to direct their workforce years in advance," she told delegates. "Fixed-term contracts are being used in a manner which disguises the reality of the job loss."

"The employers are turning the profession into a casual workforce. This will be a disaster for the schools and for the profession."

Sons before daughters...

Boys are nine times more likely than girls to have a computer bought for them by their parents, the conference was told.

Mrs Margaret Raff, vice-chairwoman of the National Union of Teachers' equal opportunities committee, said this as she spoke to an NUT meeting calling for courses in technol-

ogy to be made equally available to girls and boys.

"The real danger is that computer studies and information technology will become a male preserve," she said, adding that the first to use computers in secondary schools were often the male-dominated maths and science departments.

Richard Garner reports from last weekend's TUC women's conference at Torquay

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ogy to be made equally available to girls and boys.

"The real danger is that computer studies and information technology will become a male preserve," she said, adding that the first to use computers in secondary schools were often the male-dominated maths and science departments.

A major TUC initiative designed to encourage more women to train in science and engineering subjects will be launched later this year.

Delegates welcomed the fact that the Engineering Council and the Equal Opportunities Commission had declared 1984 Women into Science and Engineering Year but claimed that the scheme was aimed at those seeking top jobs and had not involved any consultation with the trade union movement.

Mrs Marie Patterson told the conference: "We must remind both the Engineering Council and the EOC of the need to improve the position of the 90 per cent of women in

'Low-skill equality overlooked'

engineering who are currently employed in the relatively low-skilled jobs in industry. This could give a real lead in opening job opportunities for women."

She added that the TUC - in conjunction with the Confederation of Shipbuilding and Engineering Unions - was holding a conference on September 12 to consider "what measures can be taken in schools, in training establishments, by employers and by trade unions, to encourage equality of opportunity for women in engineering, especially those with the least qualifications."

Mrs Patterson also said it was ironic that there was a question mark hanging over the future of the Engineering Industrial Training Board in WISE year. She said EITB had been "one of the few supporters of women's training in engineering."

In brief

Unfair interviews

Women seeking jobs as college lecturers have been asked intimate questions about their sex lives, the conference was told.

Ms Patricia Leman, from the National Association of Teachers in Further and Higher Education, said: "Women have been asked what kind of contraception they use and what kind of childcare arrangements they make - as criteria for employment."

Ms Leman was speaking to a motion which claimed that inequalities in education and training provision and discrimination in interviews had led to promotion opportunities for women at work becoming "virtually non-existent".

Spending cuts

Thousands of school catering and cleaning staff have been dismissed because of the drive by Conservative-controlled local education authorities towards reducing spending and putting

services in the hands of private contractors, the conference was told.

Ms Joan Cockerill, from the National Union of Public Employees, said that four county councils had already abolished all but the statutory free school meals in their primary schools - and that Hereford and Worcester planned to scrap all meals.

Prison courses

More resources should be devoted to the education of women in jail, delegates agreed in the wake of the Parliamentary Select Committee report on education in prisons.

Ms Penny Holloway, from the National Association of Teachers in Further and Higher Education, said: "If proper education was provided for women prisoners in terms of basic literacy and numeracy, counselling and vocational training, they would be better able to re-enter society."

Leman re-elected

Ms Patricia Leman was re-elected to the TUC's women's advisory committee. Mrs Margaret Raff, of the National Union of Teachers, was defeated.

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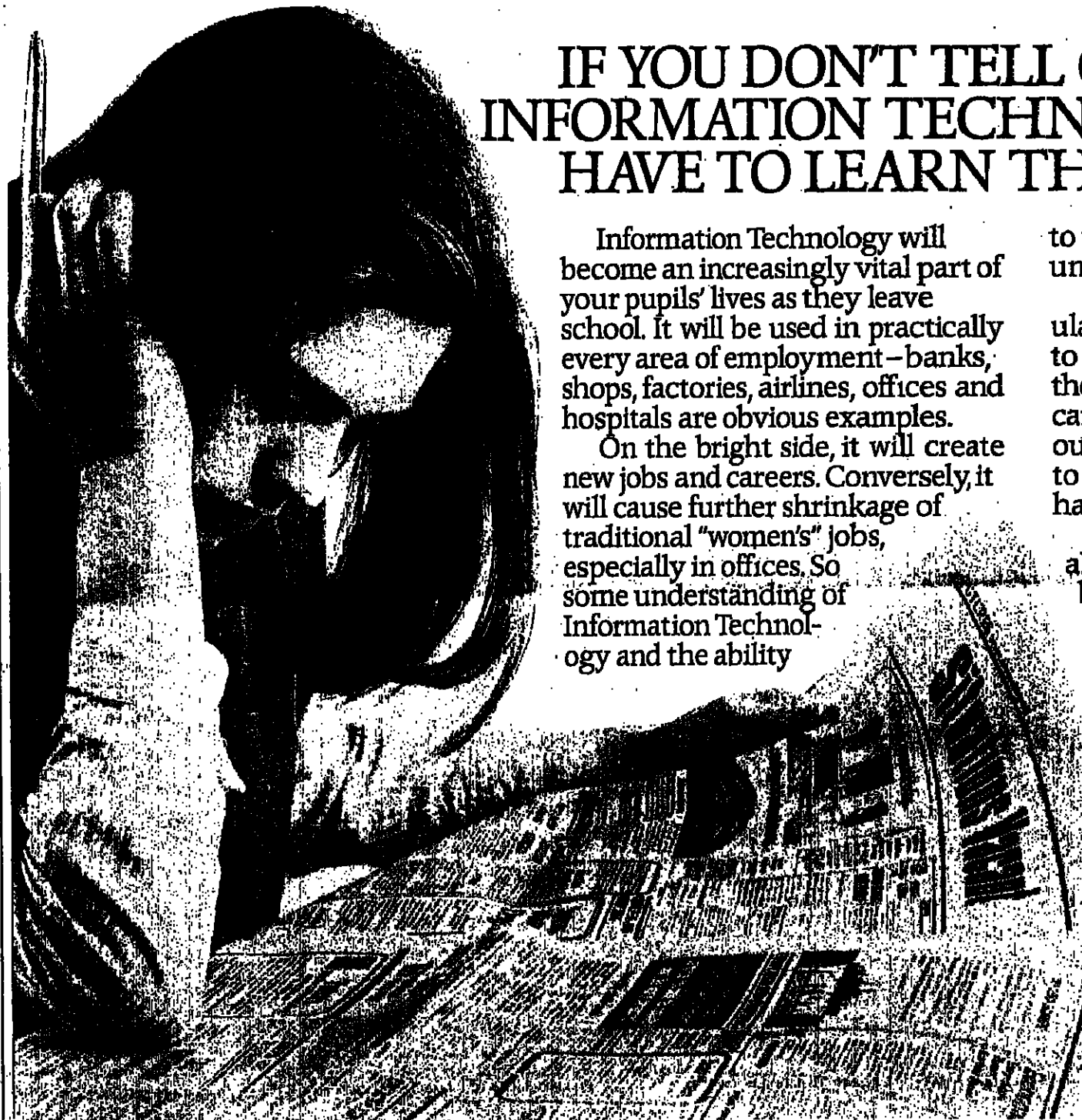
to use it will become an almost universal job qualification.

Yet it's a subject that girls in particular for all the wrong reasons, tend to avoid. Which means girls need all the advice and encouragement you can give them. The EOC are sending out posters and literature to help you to help them; check if your school has received its copies.

Now is the time for girls to learn about Information Technology - because that's where most future job opportunities will be.

Equal Opportunities Commission

Overseas House, Quay Street, Manchester M3 3HN.



Schools Council work trumpeted in Last Post

by Nick Wood

The Schools Council passes into history at the end of this month with its "flags flying, bayonets fixed and drums beating", Mr Arnold Jennings, the acting chairman, says in his farewell message.

Major initiatives such as the Industry Project and the Secondary Science Curriculum Review have survived the council's demise and will be taken under the wing of the new School Curriculum Development Committee.

Work on other projects was speeded up to minimize the possibility of wasted effort and the fruit of this labour will be published over the next couple of years.

The new curriculum committee is likely to take over responsibility for the council's publications and to manage its list of titles.

Mr Jennings' verdict appears in his foreword to its final report. Over the 20 years it has been in existence, it has brought about a fundamental shift in the way teachers do their jobs, he says.

"The outlook and spirit of teachers and their practice in their teaching in the classroom are different because of the work of the Schools Council."

"It has shown not only the world of education in this country but in other countries a new way of curriculum innovation and development, ways of freeing the curriculum from the dominance of external examinations, ways of meeting change and of enabling the curriculum in schools to respond to changes in society as a continuing process."

Mr Jennings and Mr Keith McWilliams, chief executive of the SCDC and previously deputy secretary of the council, pay tribute to the dedication of the council's staff in the face of nearly two years' uncertainty about their futures.

The 66 staff members were made redundant at the beginning of January - 26 of them got jobs with the Secondary Examinations Council and the SCDC - and the 17 who remain will clear their desks for the last time at the end of next week.

The report, *Schools Council: The Final Years 1962-84*, summarizes the five main programmes of work, lists titles published and sets out those planned for future publication.

Grants reflect poly surge

by Biddy Passmore

The sharp increase in admissions to polytechnics and colleges when the universities were forced to cut back in 1981 is clearly reflected in statistics on student grants just published by the Department of Education and Science.

The number of new mandatory grants paid in England and Wales in 1981-82 rose by 8 per cent, from 124,700 to 134,500. But the number of new grants for students on first degree courses in universities dropped slightly, while new grants for undergraduates in the public sector shot up by nearly a quarter, from 33,500 to 41,400.

There was also a sharp rise in the number of awards going to students on non-advanced courses. Lesser value awards - nearly 90 per cent of which go to students under 19 - increased by 22 per cent, from 65,000 to 79,500.

Overall, local education authorities paid out nearly £500m for student maintenance in 1981-82 but it did not cost them nearly that much. For the 354,500 mandatory grants they paid (72 per cent of the total number) 90 per cent of the cost was reimbursed by central government.

Exactly two-thirds of the students receiving full value awards (that is, mandatory grants or discretionary grants at the same level) should have had part of the grant paid by their parents. But more university students were dependent on parental contributions than their counterparts in public sector - 71 per cent compared with 61 per cent - because their parents were richer.

Over England and Wales as a whole,



University students are more dependent on parental contributions than their polytechnic counterparts as their parents tend to be richer.

200 out of every 1,000 18 and 19-year-olds took up new full value awards - that is, started degree or higher diploma courses - in 1981-82, a slight increase on the previous year but down from 209 per 1,000 in 1976-77.

There were the usual wide differences between the proportion of the age group entering higher education in different authorities. The London Borough of Richmond, as usual, came top, with 375 per 1,000 and other authorities with more than 300 per 1,000 were the London borough of

Barnet, The Merseyside district of Wirral and the central Welsh county of Powys.

At the other end of the scale, only 15 in every 1,000 18 and 19-year-olds in the London borough of Barking started a higher education course, as only 95 in the Merseyside district of Knowsley.

Student Awards - Figures for 1981-82, DES statistical bulletin 384, available from Statistics Branch, DES, Elizabeth House, York Road, London SE1 7PH.

Degree still improves employment prospects

A degree is still a great help in getting a job - this message comes through loud and clear in a new survey of graduates' employment prospects.

It found that despite the recession in the years 1977 to 1982 employers still stepped up their graduate recruitment by 7.3 per cent. The public service and industrial sectors cut back, but that was outweighed by growing recruitment by employers in areas such as banking, law and accountancy.

The survey, which was carried out by Manchester Polytechnic's staff development unit, covered 468 employers who recruited 6,700 graduates in 1982, nearly one-fifth of those who earned permanent employment in the UK that year.

Overall, graduates were found to earn significantly higher salaries than non-graduates performing similar work in an organization. Within the graduate sample, those who had taken full-time courses were, on average, earning most.

The researchers found strong evidence that employers' recruitment was influenced by a "hierarchy of prestige", and that they discriminated especially between university and polytechnic graduates. But they also found that some employers were challenging this hierarchy by using increasingly sophisticated recruitment techniques.

Forty per cent of all sandwich course graduates were recruited by firms with whom they had done work placements during their course, the survey found. The larger the organization, the more likely this was.

But the report contains a strong plea for sandwich course placements to be better supervised.

Glass of '82 by Mike Kelly and Michael Dorsman, can be obtained from the Staff Development Unit, Manchester Polytechnic, Elizabeth Gaskell Site, Hathersage Road, Manchester M13 9PA, by enclosing a cheque for £12.50 payable to Manchester Polytechnic.

NELP lecturers get jobs reprieve

Fears that as many as 100 staff at North East London Polytechnic would have to be made compulsorily redundant have now receded.

A combination of the high number of academics volunteering for early retirement and increased support from the polytechnic's three I.C.A.S. units can get through the next financial year without sacking staff.

This feat will be achieved despite a cutback in funding of about £1.2m, imposed in the main by the Government. Mr Gerry Fowler, the polytechnic's director, said last week: "The happy result" had come about because a large number of teaching staff had shown "a spirit of goodwill and self-sacrifice which could hardly have been expected of them", he explained.

No fewer than 64 had volunteered for early retirement or severance of their contracts on March 31, he said. A further 16 had agreed to leave at later dates and others were "favourably disposed" to early retirement.

The second reason for the polytechnic's temporary salvation was the fact that Barking, Dagenham, Newham and Waltham Forest had now raised their contribution to the polytechnic's budget from £725,000 to £1m.

Last month, Mr Fowler was predicting a shortfall in the polytechnic's budget of some £2m.



Gerry Fowler

MSC takeover: NATFHE may do deal

The Manpower Services Commission is hoping to do a deal with NATFHE, the college lecturers' union, over the implementation of the Government's decision to switch control of part of the college funding from the local authorities to the Commission. There is powerful support within the union leadership for such cooperation.

The deal is part of the MSC's strategy to bypass the local authorities, who are refusing to cooperate in working out how to distribute the money being taken away from them. The Commission's officials are determined to have their plans ready to submit to ministers by the end of May.

Consultation papers on the main requirements for implementation, funding priorities and the national and local machinery for allocating the funds to courses, will go to the commissioners for approval next month. Then

Edited by Mark Jackson

they will be circulated to NATFHE and to the Association of College Principals, as well as various industry bodies - but not to the I.C.A.S. or their colleges.

Publicly, NATFHE is strongly opposed to the switch in college funding. But an internal discussion paper, argues that the union will have to come to terms with the MSC.

The paper, put by officials to a meeting of the union panel which deals with MSC matters, says that the policies put forward in the Government White Paper on training, which announced the change in college funding arrangements, are contrary to the union's long-standing policies and goals.

But it adds that it is already working to try to protect the interests of students, staff, and of the I.C.A.S. "This

involves working with the I.C.A.S. and the MSC itself on the structures within which the White Paper proposals can be delivered".

The paper concludes that whatever emerges from the controversy over the White Paper, the MSC is bound to play a growing part in the funding, organization and content of further education, and that NATFHE needs to defend the interests of students and staff as vigorously as possible.

This may, in some cases, require outright opposition, but "it may be necessary to ensure that the association is represented on machinery set up by the MSC or others."

YTS goals may be downgraded

Fears are growing in and outside Whitehall that the Government is planning to jettison its commitment to the goal of vocational preparation for all school leavers. Officials and some of the organizations participating in the Youth Training Scheme suspect that ministers now want to keep it as a programme mainly for unemployed youngsters.

The YTS was conceived as the first step towards the implementation of the New Training Initiative, the strategy for reforming and modernizing Britain's training system. One of the three NTI objectives is to offer everyone under 18 either full-time education or work experience combined with training and education.

The objectives have been formally endorsed by two successive employment secretaries, Mr James Prior and Mr Norman Tebbit, since they were put forward by the Manpower Services Commission three years ago and were spelled out fully in the 1981 training White Paper. But this year's White Paper on training did not repeat the commitment to move towards a universal scheme for school leavers. Instead, it rephrased the objective as "better arrangements for the transition from full-time education to work".

And while the paper expanded on the future for other programmes such as the Technical and Vocational Education Initiative, it said nothing about developing the YTS. It is understood that ministers would have liked to state clearly that the did not intend to extend any further, but were dissuaded by the MSC.

The issue is likely to be raised formally with the Government by the Manpower Services Commissioners, who have decided to review the state of the YTS and its relationship to other schemes, and to tell ministers how they now think the scheme should develop. A sub-group of the Youth Training Board has been set up to report to the Commission by this summer. It is headed by Mr Ken Atkinson, the MSC's director of youth training, and includes representatives of the Trades Union Congress and Confederation of British Industry, the British Youth Council, the careers service, and the local authorities.

The group is likely to express itself strongly against the increasing ministerial interference in the running of the scheme, and in particular the Government's insistence on changing the basic concept by altering the balance of provision. Anger among many of the board members at last year's cutback in college-based training is exceeded by their shock at the current forced reduction in Mode B1, the community projects run by local authorities and voluntary agencies.

A new approach to the running of the YTS was urged this week in a report from the National Council of Voluntary Organizations, which proposes that the Government should drop all distinction between training sponsored by employers and that offered by others.

Mr Nicholas Hinton, the NCVO's director, gave a warning that the arbitrary cutback in Mode B, which was wrecking all sorts of successful schemes, might even imperil the Manpower Services Commission's ability to meet the undertaking to offer a place to every unemployed 16-year-old school leaver.

Well done, take a cut...

Mr David Young, Manpower Services Commission chairman, toured a training centre last week, praising its remarkable success. Then he told the YTS that he could not stop his officials from cutting back the project.

Manchester Industrial Centre, formally opened by Mr Young on Thursday last week, has been operating as a Youth Training Scheme project since last autumn. It has already placed more than a third of its original intake of school leavers in jobs.

Mr Young thinks it may turn out to be a highly effective kind of youth training which could be reproduced elsewhere in the country. But because it is a Mode B project the MSC area manager has just cut back the places by 10 per cent and Mr Young says he cannot overrule the decision.

The centre, which opened with 65 trainees and was planned to reach 300 over the next three years, has had its target of 128 trainees for next year pegged back to 95 - a smaller percentage cut, say MSC officials, than most other Mode B projects in the area.

Located in a former Roman Catholic school, the centre seems at first sight much like the training workshops run for the YTS by many local authorities and voluntary agencies. What makes it different is its aim of creating jobs as well as providing training.

The project is the brainchild of Sir Alex Smith, former Manchester Polytechnic director and one-time chairman of the Schools Council. With a senior MSC official he worked out the plan under which - using polytechnic know-how - school leavers are being trained by helping to design and make



On the board: part of the process in producing the goods

products which it is aimed should go on the market.

Funding for the centre comes mainly from the MSC, which pays part of the overheads as well as the trainees' allowances and most of the staff costs. The rest of the funding comes from Manchester City Council.

But the idea is that eventually it will make enough profit - either from making and selling products or by earning royalties on their manufacture by local companies - to offset a significant share of the costs.

Its trainees are already producing prototypes for a range of children's furniture, kitchen woodware and chairs.

From basic concepts produced by the centre's design director, trainee draughtsmen produce detailed drawings and pass them on to trainees in the woodwork and metalcraft shops who

produce the prototype goods.

Other youngsters train in office typing money for the centre by taking on catering for outside functions.

Gillian McGrath, the training and education officer, says that few of the trainees have any academic achievements and most had been written off by their teachers. A lot of her work is pastoral care, with the trainees coming to rely on the centre for all sorts of help and advice with their private lives.

But there is little absenteeism, she says. The youngsters say it is easy to ask the staff for advice "because they treat us like adults, not schoolkids".

Sir Alex Smith, now the centre's chairman, hopes that before long it will be creating extra jobs when it starts granting licences to firms to manufacture its prototypes on condition that they take on a quota of its trained youngsters.

Careers Diary



by Brian Heap

I want to consider this week the problems facing those sixth-formers who have so far received rejections from all their university applications.

In their first place they will already have received instructions about re-applying through the Continuing Applications Procedure (the CAP scheme). This enables them to name up to four more choices of course and university. UCCA then sends the application to the university which is the highest in order of preference and which still has vacancies.

In 1983 10,173 candidates applied for places through CAP: 2,450 received offers and 1,185 were finally accepted.

But any decision to apply, however, should be carefully taken by sixth-formers and with two things in mind. First, if they apply for popular courses and are considered to be reasonably strong candidates - possibly late developers - then it may be advisable to wait until the results are published in August.

Then if the grades are high a few phone calls around the universities could prove successful and the student could get a place through the clearing scheme.

Second, sixth-formers applying through CAP should make firm decisions about the course, choose the universities with care, and, above all, check beforehand that they can consider the student in the CAP scheme.

Meanwhile with the GCE mock results to hand, many sixth-formers might now be considering "insurance" applications. Polytechnics and colleges still offer places on slightly lower grades than do the universities although even now some of the more popular institutions are oversubscribed on applications.

Enrolments for polytechnic places showed an overall rise of 7 per cent last year.

The Higher Education Guide (BBC Publications: £3.95) provides profiles of each college and poly discussing location, size and the courses available.



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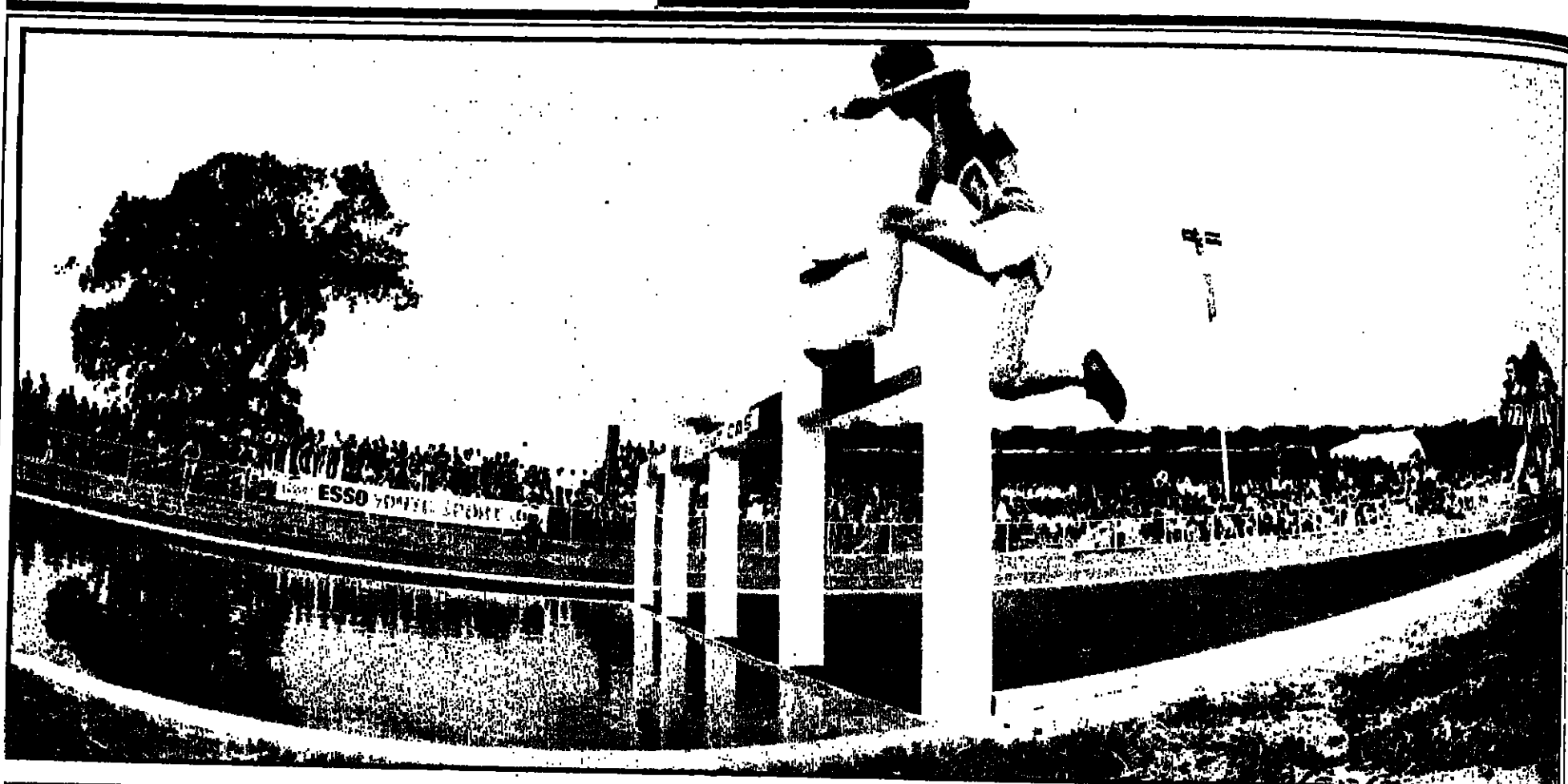
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SPORT



Tony Baylis on the findings of an ILEA study into ways of giving boys and girls the same sporting chances.

Jumping the sex hurdles

During the present day debate on equal opportunities, fingers are being pointed constantly at the physical education fraternity because of the way the subject is presented in our schools.

The legacy of the old public school system of major games and school teams still influences, and in most cases dominates, we still spend more time on school teams than on the average and less able child, we still teach single-sex groups without educational reasons for doing so, and we still perpetuate the notion of "girls' activities" and "boys' activities" even though such stereotyping is not physiologically justifiable.

An Inner London Education Authority physical education study group has just completed two years of research into wide issues concerning the provision of equal opportunities for girls and boys. Physiological considerations, which the group tackled first, encompassed a minefield of myths and assumptions relating to potential.

Until 1980, some researchers believe that women's potential could be even greater than men's because they may have an enhanced ability to metabolize fats, sweat less (so do not dehydrate so easily) and maintain a higher exercise capacity longer into life. Linear regressions of world best performances in running, cycling and swimming indicate that women will "catch" men within 50 years. Already, teenage girls are swimming faster than Mark Spitz, swam only a decade ago.

Another area where myths concerning women's weakness prevail is that of menstruation. Menstruation need not be disabling. Over a quarter of gold medals have been won during menstruation.

Women are also supposed to be more injury-prone than men. A survey of women playing rugby in America showed that this is not the case. Breast injuries (the breast is always cited as being "delicate") were rare, resulting only in minor contusions, none of which became malignant. Women's reproductive organs are better protected than men's and, because women have a thicker layer of subcutaneous fat and shorter limbs, it could be argued that the female body is better adapted to withstanding injury in contact sports.

The group looked at legislation affecting physical education and sport, and found the 1975 Sex Discrimination Act, inadequate, and unsupportive, allowing the continuation of male only (or female only) sports and recent litigation challenging discrimination has failed.

When the Act was debated in the House of Lords, Lord Somers said: "I

cannot think of rugby as a very suitable game for girls nor do I see boys taking to netball very successfully, epitomizing the attitude of some of our law-makers.

Responding to the spirit of the Act, the 1977 Education Green Paper talked of "positive steps" which should be taken to enhance the aspirations of girls but the Equal Opportunities Commission complains that if local

gymnastics in plimsolls while insisting that the girls have bare feet? Why should girls continue to suffer the embarrassment of wearing tiny skirts, especially in mixed lessons? We should capitalize on the fact that leotards are fashionable.

Sadly, many secondary schools with separate boys' and girls' physical education departments report little joint planning and one wonders how the continuation of separate departments can be justified except in those schools where the sexes have to be separated on religious or cultural grounds.

Observation of 229 primary and 61 secondary mixed physical education lessons showed that teachers were very enthusiastic about its benefits. They warned about rushing into mixed PE and advised wide consultation and careful matching of the experience of groups to be mixed. But they maintained that the level of skill learning was high and that hidden curricular benefits spilled over into the classroom and the playground.

The large post-school drop-out from physical activities is a problem noted by experts nationwide. The ILEA group suggest that girls drop out because school programmes do not match personal aspirations, providing team games rather than yoga, dance and keep fit - all popular with women in adult education classes.

Boys, too, drop out. Less than 15 per cent of males aged 17-44 in Greater London play soccer to "enjoy" it at school. Secondary schools spend, it seems, a disproportionate amount of time on team games.

The ILEA group make radical recommendations on the way physical education should be organized in initial training and schools. It challenges the function of sport governing bodies, and even urges a change in the law, to exclude any individual from an activity on gender grounds alone, to improve the education of the other participants.

Tony Baylis is the warden of ILEA College of PE. Copies of the ILEA report, "Providing Equal Opportunities for Girls and Boys in Physical Education", are available from him at 16 Paddington Street, London W1W 4BS. Price £2.00. (Orders should be sent to 16 P Street, London W1W 4BS.)

also got under way and it has now crossed the Atlantic to become firmly established in Britain.

In the Eastern bloc countries, women's outstanding performances reflect their society's expectations and the social rewards that follow. In Sweden, mixed PE is the norm after a 1962 Bill which recognized that the status of women could not be improved without abolishing both the privileges and obligations assigned to men. Men often resent their obligations as much as women resent men having privileges.

In the developed countries, only Italy has fewer women involved in sport than Britain.

While the media must take some responsibility for its share of popular stereotyping by sensationalizing stories about the presence of women in "men's" sport, it could also do much to improve their image by publicizing women's events and achievements. These are rarely well reported.

Oscar Wilde said: "Football is all very well as a game for rough girls but it is hardly suitable for delicate boys". In sport, it would seem from the evidence that girls and boys are not opposite sexes.

Practice in primary schools indicates, however, that differential treatment still prevails. Many primary teachers complain that local leagues determine the way they organize the curriculum with emphasis on single-sex teams and their preoccupation with fierce competition.

Sports governing bodies in general have been very slow to respond to the 1975 Act and subsequent debate. Many examples of sexist rulings still exist: women cannot crown bowl, triple jump, pole vault, hammer throw, and men cannot compete on uneven bars or the beam, or in men's rhythmic gymnastics ("this very female sport", says the British Amateur Gymnastics Association) and have to play longer matches than women in field games.

In coeducational secondary schools there is a growth in the teaching of mixed groups but exclusive practices still exist: few girls learn soccer, cricket, rugby, weight training and so on, and fewer boys do netball, dance, hockey, rounders or keep-fit.

Many schools make different requirements of girls and boys regarding kit. Why do so many allow boys to do

gymnastics in plimsolls while insisting that the girls have bare feet? Why should girls continue to suffer the embarrassment of wearing tiny skirts, especially in mixed lessons? We should capitalize on the fact that leotards are fashionable.

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NOTICEBOARD

PEOPLE...

SCHOOL APPOINTMENTS

Mrs Kate McGuinness, deputy head of St Joseph's Infant school, to be head of St Alban's JMI, Camberwell, south London.
Miss Yvonne Zyginski, deputy head of St Alban's JMI school, to be head of St John Fisher JMI school, Thamesmead.
Mr Peter Sanders deputy head of Drayton first and middle school, Ealing, to be head of Robert Blair primary school, Islington, North London.
Mr David Berkley, formerly assistant housemaster at Christ's Hospital, Horsham, has been appointed head of Clifton Hall School, Newbridge, Midlothian.
Mrs Christine Bowering, second mistress of Sheffield High School, to be head of Nottingham High School for Girls.



Dr Edwin Owens (above) County Education Officer for North Yorkshire since 1974, is to retire in July.
Professor Philip Reynolds, Vice-Chancellor of Lancaster University, is to retire in September 1985.
Mr David Maland, High Master of Manchester Grammar School, is to take early retirement from July 1985 in order to take up full-time academic study.
Mr Rex Thomas, Principal of St Austell Sixth-Form College, is to retire at Easter.

CONFERENCES...

April 5-7 Art and Design - Interdependent and Interrelated - the annual conference of the National Society for Art Education at the Assembly Rooms, Bath. Details from the General Secretary, NSAE, 7a High Street, Corsham, Wilts SN13 0ES.

April 16-18 National Association for Multiracial Education conference on Anti-Racist Action in Education at Bath College of HE. Speakers include Chris Mullard and Frances Morrell. Details from Stephen Ward, Bath College of Higher Education, Newton Park, Bath.

April 17 Education for Industrial Society one-day conference on Achievement based assessment in the nation's education system for delegates from education and industry from 9.30 am to 4.35 pm at 48 Brynston Square, London W1. Speakers include Tim Brighouse, Bob Dunn, MP, and Mike Tomlinson. Fee: £51.75. Details from Henrietta Walker at the above address.

April 26-27 Moving Literacy Purposal the first Manchester Literacy Conference at Manchester Polytechnic, will examine ways of relating all aspects of literacy to children, students and adults. Details from Manchester Literacy Conference, School of Education, Manchester Polytechnic, 795 Wilmslow Road, Didsbury, Manchester M20 8RR.

April 27-28 Open Plan Primary Schools - the First 25 Years - a residential conference at Easthampstead Park, Wokingham, Berkshire, to explore the rationale, development and future of open plan schools. Contributors include Joan Dean, Maurice Giffon and Norman Thomas. Details from Mike Brogan, Wokingham Teachers' Centre, Reading Road, Wokingham, Berks RG11 1RF.

EVENTS...

March 29 The Parents' Campaign for Integrated Education in London, a new organization to encourage the education of handicapped children in ordinary schools, is to be launched at a public meeting at County Hall, London SE1 at 7.30 pm. Speakers include Philip Russell, Mark Vaughan and Peter Newell. All parents of children with special needs, professionals and other interested

people welcome. Details from Penny Junfield, chairman, 35 Leppock Road, London SW4 9LS.

March 29 Inaugural meeting of the West Sussex branch of the National Association for Primary Education at the John Seldon First School, Nelson Road, Worthing at 7 pm. Further details from the headmaster, St James School, Chichester, West Sussex.

April 4-October 28 A New Look at the Dinosaurs a major Yorkshire Museum / British Museum exhibition in York. For details of facilities for school parties and booking forms write to The Yorkshire Museum, Museum Gardens, York YO1 2DR.

Spring The National Museum of Wales is organizing a series of 20 field excursions throughout Wales starting on Saturday, April 14, at Old Radnor, Powys. Families interested in industrial and local history, archaeology, botany, zoology and geology are invited to send for details to the Publications and Information Officer, National Museum of Wales, Cathays Park, Cardiff CF1 3NP.

COMPETITIONS...

The Croquet Association is organizing an inter-schools croquet competition this summer. Teams will consist of four players and the draw will be arranged on a regional basis. If schools do not have their own croquet facilities, they will be put in touch with neighbouring croquet clubs. Any school interested in taking part should contact C Hudson, The Oaklands, Englesea Brook, near Crewe, Cheshire CW2 5QW.

Details of the Texaco / National Theatre playwriting competition are available from 34 York Way, London N1 9AB. Plays must be suitable for production by the National Youth Theatre and should deal with the lives of young people today or be based on an historical topic which has some contemporary relevance. Closing date April 30.

RECENT PUBLICATIONS...

The Royal National Institute for the Blind has produced an odour kit of 14 smells to stimulate blind children's awareness of everyday objects and places. The kits are available free (while stocks last) to schools for blind and partially sighted children from RNIB, 224 Great Portland Street, London W1N 6AA.

MENCAP, the Royal Society for Mentally Handicapped Children and Adults, has published its annual guide to guest houses and hotels which welcome retarded people. It costs £1 and is available from MENCAP, 123 Golden Lane, London EC1Y 0PT.

Microcomputers and Special Educational Needs: a guide to good practice by Bob Hogg is available from the National Council for Special Education, 1 Wood Street, Stratford upon Avon, CV37 6UE, price £1. It offers general background information on microcomputers, indicates the implications for the curriculum of their use in schools, states how they help meet children's special education needs, whether they have severe or moderate learning difficulty, physical handicap, sensory impairment or maladjustment; it also reviews likely future developments.

INFORMATION WANTED...

A secondary school teacher researching into media studies in schools would like to hear from others introducing the subject. This is the area defined, what approaches and methods are used and what are the constraints. A proposed document prepared on the basis of replies will be sent to all respondents. Please write to Adrian Bailey, Faculty of Education and Community Studies, Liverpool Polytechnic, Barkhill Road, Liverpool L17 6BD.

Lois Lang Sims is writing a book of her years as a pupil at the Turnbridge Wells High School, 1930-34. She would very much like to hear from anyone who has photographs of this period. Please write to her at 78 Kings Hall Road, Beckenham, Kent.

A schoolmaster Fellow at Fitzwilliam College, Cambridge is researching into 'The role of the comprehensive student at Obedience'. Teachers in comprehensive schools who would like to pass on their views about the proposed changes in Obedience examinations procedures, or any other aspect of preparing and admitting comprehensive students to Obedience should write to James Archer, Fitzwilliam College, Cambridge CB3 0DG.

Compiled by Mary Cruickshank

NEWS

Moves to hamper council's plan to axe 48 middle jobs

by Richard Garner

Teachers in Ealing are refusing to cooperate with moves by the Conservative-controlled local authority to axe 48 jobs in the borough's middle schools as part of a cost-cutting measure for next year's education budget.

Members of the Ealing branch of the National Union of Teachers are worried that the plan - agreed at a council meeting last week despite a half-day strike by teachers - could lead to compulsory redundancies.

The move to reduce teacher numbers in the borough's middle schools is one of two cost-cutting moves which have provoked a storm of opposition. The I.C.A. is also expected to decide within the next few weeks whether to put out its school meals service to private contractors - and has already

decided to save £200,000 on the school meals service next year.

Teachers fear job cuts will follow savings in middle schools especially since the education committee has already passed a resolution calling for statutory consultations with the teaching and non-teaching staff over possible redundancies as a result of the implications of this year's budget.

Mr Gary Martin, the NUT's Ealing spokesman, said the cut in jobs - due to be introduced by September - would be bound to affect the curriculum offered in some of the borough's middle schools.

He added that officers of the association were instructed by their members not to provide information for an

i.e.a. circular sent out to middle schools, which asked for details of the people who had either applied for other jobs, were candidates for early retirement, or for transfers to other schools or voluntary redundancy. The association was approaching the union's action committee for support.

Mrs Anita Fookes, chairman of the education committee, said that it was the council's policy to avoid compulsory redundancies wherever possible. However, she added: "We cannot give the guarantee there will be no redundancy."

She said that if any school was placed in serious difficulties over the job losses the authority would be prepared to examine its case. However, she doubted that this would arise.

Dressing down for staff

by Adriana Caudrey

Down-at-heel teachers, particularly those in denims, with a "punk" look, may find themselves nominated for the title of Scruffiest Teacher in Britain.

The Sun newspaper has asked schoolchildren to put forward contenders for the competition which would earn the winner a free haircut and £150 worth of fashions courtesy of C&A.

Roy Greenslade, the paper's assistant editor, envisaged that the winner would be someone "with a punkish look, in denims, with lots of political badges, and scuffed shoes".

A spokesman for the National Union of Teachers responded by saying: "It's a pleasant surprise to learn that The Sun is taking standards seriously."

But Mr Nigel de Gruchy, deputy general secretary of the National Asso-

ciation of Schoolmasters/Union of Women Teachers, said of the competition: "A number of teachers invite this sort of thing by going into school scruffily dressed."

The inspiration for the competition came at an editorial conference.



according to Mr Greenslade. He said it was intended as: "a bit of fun".

In a spoof letter, accompanying the competition announcement, a fictitious pupil writes of his English master: "He always turns up with his shirt undone. And he always wears a donkey jacket. We nickname him Punky - even though he's in his thirties."

DES blamed

The Department of Education and Science has been criticized for failing to give a clear lead on problems of sex differentiation in schools and the lack of women teachers in senior jobs.

The Women's National Commission, the Government's advisory commission on women's affairs, attacks the DES for refusing to issue a circular to local authorities on the issues. It says the department has failed to press for the study of gender as part of initial teacher training, and has also failed to help ensure that girls have as much access as boys to computers.

It suggests that education support grant funding could be used to provide in-service training on attitudes towards gender.

Last year the commission sent Sir Keith Joseph, the Education Secretary, a 12-point plan for tackling these issues. But little has been done about it, it says.

Our Heritage · Thorpe Farm
Nature Trail · Model World
Children's Maze · Historic Aircraft
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OVERSEAS



Morning assembly at Woodmead School in the Transvaal, one of the relatively few multiracial schools in South Africa and possibly the only one with a stated and achieved policy of having 50 per cent non-white children.

The 275 pupil private school is "illegal", breaking nine race laws. It runs bridging courses for pupils whose primary education has left them well behind their peers and boasts a number of university entrance successes among its non-white pupils.

Founded in 1970, the school is not approved by the South African Government and, not surprisingly, receives no financial assistance from it. Nevertheless, the Government

has so far refrained from closing it down, not least perhaps because of the political repercussions.

Veteran anti-apartheid campaigner Helen Suzman is on the school's board, as is Mrs Bridget Oppenheimer, the wife of the head of the multi-national company, Anglo American.

Its headmaster, Mr Peter Nixon, who has been in Britain "to raise funds and moral support" and also to look into the prospects of getting the school into the International Baccalaureate examination, says the school's future is uncertain.

David Lister

Catholics disappointed at peace offering

FRANCE

Mary Follan on the Socialist compromise on private schools

The French Government's communiqué on what was supposed to be the outcome of lengthy negotiations with private schools, brought a note of disappointment from Canon Paul Guibert, general secretary of the Catholic schools association. A colleague of his said the Government would have to modify its views considerably for them to be accepted.

Earlier Canon Guibert had said that the talks had provided an "historic opportunity" to end the century-old war between the 10,000, mostly Catholic, private schools, and the State sector.

The communiqué covered four points which have been discussed by Catholics and the Government for nearly two months. These deal with:

- Conditions under which public funds are allocated to private schools under contract;
- Contributions by local authorities;
- The creation of special "establishments of public interest" to monitor these public funds; and
- The possibility of bringing private school teachers under the state umbrella by giving them a six-year Government contract after which they would be offered accreditation, or civil servant status.

Allocation of funds to private schools in the budget will be subject to the same conditions as in the state sector. They will no longer be able to create new classes at will and claim funds accordingly. This gave them an unfair advantage over State schools which often go short of teachers because the budget fixes the number of posts to be created in advance.

The first part of the communiqué states that parental choice will be maintained in the private sector.

The State will continue to contribute to the private sector but local authorities will, it would seem from the communiqué, be expected to allocate funds to private schools in their area under the same conditions as those made to State schools. This is in line with last July's decentralization Act which has given more power to local authorities, although French education continues to be highly centralized.

The communiqué also assures private schools that the creation of "establishments of public interest" will not mean less autonomy in administrative, financial or pedagogical affairs and that an experimental period will be necessary before radically new relationships between public and private partners can be established.

The final point, the offer of accreditation or civil servant status to teachers in private schools, is the most controversial and one which the Catholic representatives have previously rejected outright, on the grounds that it would severely jeopardize the future of Catholic schools.

The communiqué proposes a six-year State contract, followed by voluntary accreditation.

In general the communiqué has had a poor reception. In addition to the Catholics, the main private teachers' union has rejected the idea of any kind of accreditation.

M Michel Bouchareiss, general secretary of the National Lay Action Committee (CNAL) has declared that the Government's intentions "fall far short of the mark."

The opposition views the communiqué as another attempt by the Government to integrate private schools into the state system. M Jacques Chirac, the right-wing mayor of Paris, has declared: "It is a pure illusion to think that signing an agreement with the socialist and communist parties constitutes an historic opportunity to settle once and for all the schools' quarrel."

Meanwhile, the Government intends to submit a new Bill on private education to the National Assembly later this spring. A text giving further details of the form it will take has prompted fresh threats of mobilization from radicals on both sides, despite a plea from M Savary to leave schools out of the political arena.

Canon Guibert says that the text is unacceptable since it will make it impossible for private schools to maintain their separate identity.

After two years of negotiations the Government is taking a risk in adopting a compromise which the Catholics oppose. Further public demonstrations are likely.

The honeymoon comes to an end

SPAIN

Sarah Jane Evans on the significance of the teachers' pay strike

The teachers' pay strike which has affected schools throughout the country marks the end of the honeymoon between the Government of Felipe González and the teaching profession.

The dispute is the latest in a series of public service strikes over the Government's attempt to restrict wage increases this year. Prime Minister González came to power on a manifesto that promised 800,000 new jobs within the term of his Government, and disenchantment has set in as that prospect becomes ever more unlikely.

The same manifesto also outlined a major reform of education, and it is this reform which lies at the heart of many teachers' dissatisfaction. A principal worry is the plan to change teaching hours, and this is one of the subjects the teacher unions and the Ministry of Education will be discussing between now and June.

While currently they do not have to attend school much more than the hours they teach, it is suggested that they will now have to be on site all day every day.

Further, a four-week summer holiday is proposed, instead of the current two-month break (which will remain for students).

The other subjects under negotiation are staffing levels in primary schools, teacher training and entry to the profession, appointment procedures, the status of short-term contract staff, and the civil responsibilities of the teaching profession.

The issue of initial and in-service teacher training is also of growing importance because since 1975-76 (ironically the year Franco died) the grades achieved by secondary students have gone down - except for a slight hiccup in 1977-78.

In one fairly typical region last year 52 per cent of eligible students failed to reach the level of the school-leaving certificate awarded at the end of compulsory education. There is therefore much talk of keeping teachers in school longer to give them more in-service training.

PE pay deadlock

While the teachers' pay dispute has been a major media topic, a one-month-old strike by physical education staff has eluded the headlines.

The unhappy PE staff are on strike over their professional status - this is not surprising given that they are often ostracized by both the pupils and their fellow teachers in schools with a heavy academic orientation.

Even in the largest state schools few PE teachers are given a full timetable and are forced to moonlight or coach in private schools. Their hopes were raised by ambitious socialist election promises to upgrade their election.

Integrate them into the mainstream of school staff and raise their training to university level. So far nothing has been done and wages and employment conditions remain unsatisfactory.

Employers recently offered some PE specialists salary conditions on a par with temporary graduate teachers. But this \$400 a month would be available to only 1,000 teachers while the others would be on temporary non-graduate scales amounting to only \$240. Because of this the offer has been rejected out of hand by the teachers' union.

The physical training programmes at state primaries are so haphazardly financed that gym teachers are usually paid by the parents from their own pockets although primary education is theoretically free.

James Connell

OVERSEAS

Union software project hits legal bug

UNITED STATES

Peter David on a controversial scheme for educational computer programs

America's biggest teachers' union has landed itself in political hot water as the result of a scheme to help schools find their way through the maze of educational programmes being offered for sale by computer software companies.

The 1.7 million-member National Education Association has launched a project to evaluate the quality of commercially available software programs. Those it approves can be sold under a triangular seal which proclaims them to be "NEA teachers certified". Schools can also buy the approved programs directly through a catalogue distributed by the union's

National Foundation for the Improvement of Education.

Many of the software products flooding the growing school computer market are acknowledged to be of poor quality. But critics say the NEA's financial involvement has created a conflict of interest for the union. The House of Representatives felt strongly enough about it this month to pass an amendment that will prevent schools using some of their Federal funds to buy programs through the catalogue.

The House action has infuriated NEA officials, who strongly reject allegations that the union stands to profit from the exercise. In a letter to the House, the union says it will receive not a single penny from the project, which is being run by the NEA's separate, non-profit making foundation, in conjunction with a private software company.

The letter adds: "NEA's educational computer service programme is a service to our members and the public

schools and is designed to improve the quality of software available for schoolroom use. NEA has assisted teachers in developing software standards and assists in identifying teacher reviewers to examine software voluntarily submitted by developers".

Its protests had little impact on the House of Representatives, however. In a debate on the scheme, the amendment was passed by 205 votes to 173. It prohibits schools from spending Federal money on equipment sold by an organization "that represents the purchasers or its employees".

Dismissing the NEA's argument, one congressman declared that any scheme that contributed funds to the NEA's affiliated foundation provided an indirect profit for the union. "It looks like a conflict of interest, Dr Fedewa said schools interested in buying NEA-approved programs were free to make their purchases directly from the manufacturer or from retail software shops. Only if they decided to

the Foundation for the Improvement of Education and a private software firm, Cordatum Inc. The NEA has representatives on the board of the foundation - which it set up a decade ago after losing its own charitable status - and on the board set up by the foundation and Cordatum to evaluate the software.

Under the scheme, NEA teachers are paid a fee to evaluate the programs sent in by individual publishers, who in turn pay a fee to have their products reviewed. According to Dr Lawrence Fedewa, the project manager and an employee of Cordatum, both his firm and the foundation expected to earn a profit by sales of software included in the catalogue.

Denying that the arrangements resulted in a conflict of interest, Dr Fedewa said schools interested in buying NEA-approved programs were free to make their purchases directly from the manufacturer or from retail software shops. Only if they decided to

buy directly through the catalogue would the firm make a substantial profit.

Even if the House amendment is approved by the Senate and becomes law, the NEA intends to continue the project. It believes the courts would be unable to show the union to be in violation of the law because it receives no money directly from the project and it is not affiliated in a legal sense with the foundation or Cordatum. Meanwhile, it says, its endorsement of educational software is providing a valuable service to teachers besieged by a bewildering array of products.

So far, the project appears to be insisting on high standards. Dr Fedewa said last week that only 207 programs had been included in the first catalogue out of 1,500 that were submitted. Most were rejected because they lacked "serious educational intent". Many others failed to show "schoolworthiness" or were rejected because of technical defects.

Ideals v. cost: an unequal struggle

NIGERIA

Jane Bryce on the difficulty of reconciling free education with austerity measures

The efforts of Nigeria's new military Government to curb public expenditure and trim waste have led to radical measures in some areas of administration. None elicits more feeling than the issue of free education, a policy now being severely undermined by some zealous state commissioners.

Free universal primary education was introduced by the previous military administration in 1976, and in five states controlled by the now banned Unity Party of Nigeria, the principal opposition to the deposed Shagari administration, education to secondary level was also made free.

Recent assurances by the Minister of Education, Alhaji Ibrahim Abdullahi, that the new Government would not stop free education, have apparently had little effect on the activities of the state commissioners. Bendel, Ondo and Kwara states have introduced education levies, while a decision to sack 21,000 unqualified teachers in Bendel has been condemned by the teachers' unions.

Oyo is the latest to announce its austerity measures, including the abolition of state bursaries to students in higher education and the end of free school books and stationery.

The Oyo policy was announced coincidentally with a two-day meeting of the National Education Council in Lagos, chaired by the minister, at which education commissioners agreed that free primary education should continue. This discrepancy between central policy and state practice is indicative of the enormous problems facing education in Nigeria.

The cost of free education at primary and secondary level throughout the country is currently being assessed at 7.9 billion naira (£7.3m). However the scandal of non-payment of teachers' salaries under Shagari demonstrates the difficulty of any uniform implementation of the free education policy. To pay teachers, revenue has to be generated.

Meanwhile the National Policy on Education known as 6-3-3-4 and published in 1977, is still to be implemented. The main change aimed at is the division of secondary schools into two, junior and senior, with three years for each.

The radical departure envisaged is from the old style grammar school, with its emphasis on academic subjects and a high drop out rate, to a bipartite system providing vocational training for non-academic pupils.

There is a glaring discrepancy, again, between the cost of implementing this policy in terms of equipment and training of teachers and the current state of the educational economy.

New York's whizzkid executive in cash upset

The New York City school system has been shaken by disclosures about the finances of its innovative young chancellor, Mr Anthony Alvarado.

The chancellor, who was appointed head of New York schools in May last year, has admitted borrowing around \$90,000 (\$60,000) from school employees, and is under investigation by city district attorneys.

Seven of the 11 employees who lent money to Mr Alvarado have been paid a total of more than \$100,000 in overtime during the last four years. Several of the loans came from people later promoted or hired by Mr Alvarado.

The matter came to light when police were called to investigate shots fired through a neighbour's window by Mr John Chin, a school employee. They found two uncashed cheques made out to Mr Chin by Mr Alvarado, along with the title to Mr Alvarado's car.

Mr Alvarado said he had borrowed "between \$15,000 and \$20,000" say \$17,000 - "don't hold me to an exact number" from Mr Chin. He initially denied any further loans, but later acknowledged that other school employees had lent him more than \$70,000.

The loan from Mr Chin was accepted in 1978 or 1979, when Mr Alvarado was superintendent of schools in District



Anthony Alvarado... breaks the rules to improve them

Four, in East Harlem. Mr Chin was given an administrative position at District Four in 1980, an appointment which Mr Alvarado said was made by his deputy district superintendent, Ms Barbara Barry. But she claimed that it was Mr Alvarado who placed Mr Chin in her office.

Another lender, Mr Terry Baker, was not employed by the schools when Mr Alvarado borrowed \$9,000 from him in 1981. Last year Mr Baker was hired as special assistant at board headquarters.

The 41-year-old chancellor, who earns \$95,000 a year as head of the nation's largest school system, has consistently denied that he has done anything illegal or unethical, and called the commotion a "tempest in a teapot".

He said that he borrowed over \$60,000, most of which he still owes, to finance the purchase of a \$35,000 house. When questioned about the difference in these figures, he said that he had personal financial problems. The chancellor also has outstanding parking fines totalling \$1,250.

Normally any city official earning more than \$30,000 a year is required to fill out disclosure forms, which include one question about any personal debts

of more than \$5,000. But school employees are exempt from this requirement.

When appointed, Mr Alvarado was known for his casual bookkeeping. During the 10 years he spent running one of the city's poorest school districts, he consistently overspent and re-directed grants, although the schools in his area, East Harlem, are said to have improved enormously.

In his first year as chancellor he has used what Mr Ed Koch, the Mayor, has called his skill as a "brilliant communicator", to start reversing the downward trend of the city's schools. He has lengthened half-day kindergartens to full-day, and has begun to open new schools and revitalize old ones. He has talked about raising teacher's salaries, and reducing the size of classes. And while his finances have been disorganized, he has been generally praised as an achiever who breaks the rules to improve them.

Official comment is as yet neutral. When asked on a television interview if he would give Mr Alvarado a vote of confidence, Mr Koch replied: "I think the jury is still out on that".

Jeremy Gavron

Announcements

MARY GLASGOW TEACHER FELLOWSHIP 1985

Applications are invited for the Mary Glasgow Teacher Fellowship, 1985. The fellowship provides for three months sabbatical attachment on full salary at the Language Teaching Centre, York, to permit the teacher fellow to pursue and/or complete a project in the field of language teaching/learning. Details of project, dates of attachment etc to be agreed between the applicant, the Trustees and the University. Help will be given with accommodation, displacement costs, research facilities etc. Preference will be given to foreign language teachers with not less than 5 years successful classroom experience and occupying senior, departmental posts in schools. Further information and application forms (to be returned not later than 1st May) may be obtained by sending stamped addressed envelope to: P. Carpenter, Honorary Secretary, Mary Glasgow Language Trust Ltd., Seymour House, Seymour, Weymouth, Dorset, DT98 3PE.

EEC must step up training for science and technology

The EEC must meet the challenge of the crisis in European higher education, the European Parliament said in a resolution passed last week.

Backing a report on higher education prepared by its education committee, parliament called for a policy to help Europe to benefit from revolutionary changes in production and communication.

The resolution demanded that a European Electronics and Informatics College should be established to train the highly skilled personnel needed to meet competition from the United States and Japan.

This college, along with proposed European chairs of physics and chemistry and a common postgraduate qualification, should be recognized throughout the Community, in order to stop wasteful duplication of effort in scientific research.

After more than 25 years, the EEC is still far from achieving freedom of movement for students within the Community, an issue raised in the higher education report and in another report on the recognition of diploma and periods of study also debated last

A second education resolution asked the Commission as a matter of urgency to propose a directive which would remove administrative, financial and legal barriers to mobility of students and teachers.

The need for Community action is illustrated by the fact that only 53,000 students (1 per cent of the European total) studied in another country during 1980. A major disincentive to students going abroad is the non-recognition of diploma and degrees between member countries, and parliament also urged the Commission to adopt an action programme which would aim at establishing Community criteria for all educational qualifications.

Funding for existing Community programmes to exchange students and staff should be substantially increased, both reports said. To back up these programmes, parliament proposes the creation of a central European information office which would gather data on recognition of qualifications, admissions policy and curricula, and would transmit this to local education authorities.

Anne Good

Paper chase

A would-be medical student whose examination papers went astray has won a judgment for damages against the examining authority.

The victory of Thomas Schüssler, a student at Würzburg University in Bavaria, is likely to trigger similar suits by up to 182 other pre-med students whose papers were also lost.

Würzburg University officials said they sealed the 183 examination papers in a package which they sent as registered mail to the Institute for Medical and Pharmaceutical Test Questions in Mainz.

But the Mainz institute claimed that the package never arrived, and stuck to that story even after the Federal post office produced a receipt for it, signed by an institute employee on August 25, 1982.

The state government of Bavaria insisted that the 183 students take the test again. Mr Schüssler then sued the institute in a Mainz court, demanding compensation for income he would have earned with a summer job had he not had to prepare for the examination a second time.

He was awarded DM3,074 (about £815) plus interest. The institute is expected to appeal.

Wellington Long

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Teachers back schools to bridge the faith gap

IRISH REPUBLIC

Ireland's biggest teachers' union has come out in favour of multi-denominational schools co-existing with Church-linked schools.

Support for such schools north and south of the border was outlined in a submission from the Irish National Teachers Organization to the New Ireland Forum which is seeking a political solution to the "troubles". It comes shortly after Roman Catholic bishops had told the forum in Dublin that their schools are not a cause of division in Northern Ireland (TES February 3).

The submission by INTO - which has 24,000 members, one-quarter of whom work in the north - says that the political divisions in Ireland, institutionalized in the 1921 partition, had a sharp educational dimension. It suggests that provision should be made for the public funding of denominational and non-denominational schools on an equal basis in both the Republic and in Northern Ireland.

It also urges fair appointment procedures and that an appeals body be established to adjudicate on complaints by groups such as parents and teachers.

The submission also recommends that an official programme should be adopted to promote co-operation and understanding among schools which cater for pupils from different backgrounds and traditions.

It also suggests that primary school staffing and provision of resources in the Republic should be brought up to the levels in Northern Ireland.

One of the Dublin schools, at Dalkey, has also made a submission to the forum saying there is a desire for schools which bridge traditional division in both the Republic and Northern Ireland.

John Walshe

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LETTERS

Lost opportunity

Sir - The front page report, "British firms lose out to foreign rivals", and the accompanying article (TES, March 2) struck me as pertinent - especially after a recent teaching experience in Tunisia. What I was told certainly is in line with Phillip Venn's report... and provides an instance of how to look opportunity in the face.

It would seem that Britain was first approached to participate in a "Transfer of Training" programme which would involve sending Tunisian students to Britain to learn more about current technology. No interest was evidently shown. Also, there were difficulties in coordinating and obtaining the cooperation of the various governmental departments (Trade and Industry, Education) which would be needed to implement such a programme.

The United States, Canada and West Germany were quicker off the mark and only too willing to participate. So it is only natural that Tunisian students will ultimately return home well-versed with American, Canadian and West German technological skills and ideas. The experience and contacts developed by these students will no doubt lead to industrial contracts which could have been British.

LEX JONES
Lecturer in Language
Middlesex Polytechnic
Trent Park
Cockfosters Road
Barnet

Nourishing crumbs

Sir - With reference to your article, "Making do with a diet of crumbs" (TES, March 2), I would like to raise a point about the British Council hoping that English language teaching abroad could have spin-offs in other such areas.

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I suggest that the British Council can be most effective in ensuring that commercial enterprises such as ours receive the business that is available in a lot of overseas countries.

R BALDWIN
Principal
Bailbrook College
Bath



Boy George: why expect him to be a square?

Sir - I found a certain irritation on reading the front page story regarding Boy George (TES, March 2). The "toughest principal in Britain" surely neglected to provide one necessary requirement for learning - motivation.

As a teacher in a special school for the physically handicapped, I would suggest that no child is "unteachable", difficult as the task usually is. The unjust indictment of Boy George regarding his potential for learning places the suggested failure squarely on the shoulders of the then young teenager. I would suggest that it is we teachers who fail because of our somewhat conservative approach.

It would be naive to suggest that we have unlimited choice in what is taught but Nick Wood's article raises fundamental questions. A non-conforming divergent thinker is labelled "unteachable" because he is the wrong shape for our solid square boxes. I do wonder whether anyone at Eltham Green School recognized that music could have been the communication bridge for Boy George.

Shakespeare's sense of shadow and substance can be ascribed to this remarkable young man. Boy George has most certainly motivated a slow-learning group of young pupils at the Marjorie McClure School. Despite a very busy schedule of work, he has found time to reply on tape to their

letters. No less than two such tapes sit proudly on the shelf in room 53. Autographed photos bearing individual names are displayed in each home.

This talented young man has shown immense kindness and a unique capacity for human understanding - rare qualities in one who has experienced a meteoric rise to fame. Articulate and interesting, his tapes reveal artistic perception and sensitivity.

A colourless world this would become were it not for courageous individuals like Boy George.

M BENNETTS
Marjorie McClure School
Hawthorn Lane
Chislehurst
Kent

Rebel with cause

Sir - Did Boy George give his former headmaster, Mr Peter Dawson, permission to publicize details of his behaviour while at Eltham Green School (TES, March 2)? If not, I sympathize with Boy George's reluctance to attend a school run by such a person.

JANE SEYMOUR
Thornhill Square
Islington
London N1

Girls and science

Sir - I was struck by the news in *The TES* of March 2 that the Girls Into Science and Technology project has not been very successful, following hard on the report the previous week of disillusionment with moves to segregate girls to enhance their scientific achievements.

I am not surprised by these results as I suggest that both approaches are fundamentally misguided. Both, in effect, attempt to alter the girls' either their peer groupings or their teachers' relationships with them - whereas I believe (and I write as a head of science in a comprehensive school) that it is science itself that is at fault.

Girls generally are rather more mature, and have considerably more insight than boys of their own age. They are able to perceive clearly that science, as it is generally taught, is essentially mechanistic and thus dehumanizing. In my experience girls are

very alert, capable and able to involve themselves critically and vocally in areas of science curricula that could impinge on their personal experience (such as science and modern war, child development) but in other areas they are far less concerned.

To suggest that science itself should be changed to suit the girls' perception of what is important is not as outrageous as it might sound. School science has but a trivial relationship to science as it is practised in industry or research laboratories. To alter it would not automatically render it invalid.

However, this cannot be done on an individual basis, due to the certain lack of public confidence in any radical approach to an educational problem. Doubtless we shall be reading of yet more cosmetic programmes, and their eventual failure.

JDB CLARKSON
11 Ringwood Ave
Prais Bottom
Kent

Maths errors

Sir - May we, through your columns, correct some errors in the data we have used in talks and written articles relating to boys' and girls' involvement in O level mathematics and physics. In 1982, while participating in the working party on Girls and Physics set up by the Royal Society and Institute of Physics, we obtained examination entries data for 1980 from the Department of Education and Science which were used in writing the *Girls and Physics* report and in the Schools Council report, *Switched-off - the Science Education of Girls*.

Unfortunately these data contained large errors in mathematics and physics entries, especially for boys, for 1980, which have only recently come to our attention. The relevant figures show that 171,331 boys entered for O level mathematics, corrected from 223,688, while 126,914, not 148,292 entered for physics. There were 143,194 girls entered for mathematics, not 147,813, and 42,108 for physics, not 43,318.

When these corrected figures are compared with those for 1976, we find that the increase in candidates per year was still greater for boys than for girls in physics, but not in mathematics, where the girls made greater gains.

JAN HARDING
Centre for Science and Mathematics
Chelsea College
University of London
SHEILA SAVILLE
Institute of Physics

Everyday Ulster

Sir - May I say how much I welcome your emphasis (TES, February 24) on Simmons and Wade's excellent book on "ordinary" young people. It is, indeed, time to look beyond the deviant. However, I must take issue with your remarks in that Comment on Northern Ireland.

Why is it that, as in the interview with Graham Reid, and the recent front-page publicity you gave to the NSPC's very superficial report on Northern Ireland, the "ordinary kids" of the province are forgotten? Instead the focus tends to be upon the deviant "path to stardom", and the differences between Ulster's young people and the youngsters of the rest of the United Kingdom.

A host of recent research on the young people of Northern Ireland has emphasized the overwhelming "ordinariness" of the experience of growing up in Northern Ireland, and how

similar that experience is to the equivalent stage of the life-cycle on this side of the Irish Sea.

Unfortunately, research of this nature does not make good journalistic copy. It is surely time that the *TES* followed its own editorial strictures, and looked behind the newsworthy media-derived veneer of life in Northern Ireland: life there for most young people is also "sensationally unsensational".

RICHARD JENKINS
Department of Sociology and
Anthropology
University College
Swansea

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The Editor reserves the
right to cut or amend them.

Other kicks

Sir - I read Allen Wade's article concerning schools football (TES, February 24) with interest although I think it missed the real problems facing primary and secondary school footballers and their teachers. In the past nine years, I have run sides at both levels and have noticed a deterioration in both skill and attitude among my pupils which has led to many, many discussions and headaches.

Why do many boys have less ball sense and skill? Why is it no longer a sportsboy's great joy to represent the school at soccer?

The answer I have come up with is competition on two fronts. First, soccer now has to compete with judo, basketball, badminton, tennis, mini-rugby and perhaps archery and hockey for a boy's time and commitment, not to mention television breakfast and evening, computer games and micros. Often a player has declined to play because football practice or a fixture conflicts with mini-rugby training, judo club or a badminton lesson. Football is longer the "single most wonderful alternative to chess and philately" that it once was.

Second, I have lost team members to a practice for their Saturday or Sunday League soccer club or a rearranged fixture. This club charges proper fees and provides a (fantastic?) coach with a badge on his track suit, a numbered multi-coloured shirt for each player and even a book with the club's

club badge and name. I have followed boys from my school team to Southern League grounds for cup fixtures, travelling with players and parents on the hired club coach. I then realized why my boys were not too disappointed if I felt they had to be dropped. I know where I would like to have seen some of the FA's £1.5m spent - at my school to replace the eight-year-old threadbare kit.

Bobby Charlton kicked a ball around in the street with Jack. They had no computer games, judo lessons or even football boots. Like Best, Maradona, Olien and Greaves, he also resisted every coach's attempts to make him like everyone else.

CHRISTOPHER JUPP
St Peter's CE Primary School
Church Road
Reading

Robson's choice

Sir - Mr Robson will always at odds with those of us who are involved in schoolboy soccer unless he realizes that we are concerned with the development of the individual boy through the medium of soccer, not the preparation of professional footballers.

In addition, does he really think it possible to identify future internationalists at 11 years of age? What has happened to the bus-loady (literally) of boys who visited Ipswich FC, when they were 11, from this "Robson's



Jack and Bobby Charlton: no other love but football.

of talent in the North-East? Many signed by him as Associate Schoolboys did not make the grade and were not offered apprenticeships. Many apprentices did not become full-time professionals.

For many reasons boys sportsmen do not develop in clearly identifiable directions. The task he is attempting is impossible and goes against all advice offered by skilled and experienced teachers.

NEIL PONT
Head of PE
Southlands County Middle School
Hon Sec, South Northumberland Schools FA

LETTERS

Imagination and computers

Sir - R W Strong's complete dismissal of computer studies and computer awareness courses for subjective and unsubstantiated reasons (TES, March 2) spoils what was otherwise a positive contribution to the debate about the developing use of microtechnology in schools.

I agree that all secondary schools need either a committee or an individual to coordinate the development, and that all staff should be involved. The new technology must be integrated as quickly as possible in all appropriate subject areas, especially business studies and craft, design and technology.

I do, however, think that awareness courses for a fourth-year option in computer studies have a place in the overall policy. The need for

the former may be only short term but to dismiss them both in two very brief paragraphs was inconsistent with the rigorous development of the rest of the article.

I have for several years been involved in in-service education and O level examining in this area, and I know many enthusiastic and dedicated teachers of computer studies, not all of whom are also maths teachers. I have evidence of sound learning and creative practical work from many pupils taking these courses. I do not agree that their experience has been unimaginative and, in the main, arid for teacher and pupil. I have always found that the lack of imagination and the aridity of teaching depends on the teacher rather than the subject matter.

Some 3,000, and surely this figure is likely to increase.

To suggest that the answer to the problem lies in the hands of the schools themselves is, I believe, rather naive. Surely, the problem must be solved at Government level, or at the very least, i.e.a. level.

BILL ROME
St Columba's RC Boys' School
Halcut Avenue
Bexleyheath, Kent

Training model

Sir - It is ironic that Jerry Wellington, of the Division of Education Studies, in your *Computers in Education* Extra (March 2) should be outlining what ought to be attempted in the field of Information Technology in initial teacher training courses and deploring the fact that no models or examples of good practice exist, while a few hundred yards away from his office across the binary line my colleagues have

member of the University Grants Committee at the time the cuts were decided and I was not in a position to defend them.

SIR PETER SWINNERTON-DYER
Chairman
University Grants Committee
14 Park Crescent
London W1

UGC cutbacks

Sir - In your March 16 issue you report me as saying that some of the 1981 round of university cuts were indefensible. I am afraid that this is not an exact representation of what I actually said at the lunch which your correspondent attended.

What I said was that I was not a

Pastoral neglect

Sir - I was interested to read the brief report of the survey conducted by the National Association of Pastoral Care in Education (TES, March 9).

During the brief history of this organization there has been criticism that it would further the pastoral curriculum divide. However, if NAPCE continues to investigate pastoral issues and demonstrate the professional and academic neglect of training and education in this vastly important field, then long may it continue to flourish. And long may it further develop a closer association between pastoral and curriculum affairs.

At Southway School we are organizing a five-day residential course for our heads of year. The major reason for this is that some of our number have formal training and education in pastoral care - only a joint 50-60 years' practical experience.

JUNE MOWFORTH
Deputy head
Southway School
Rockfield Avenue
Plymouth

Drug dangers

Sir - I read, with interest, the article on heroin and young people in the March 9 issue of *The TES*.

However, for the record, I did make it clear to your reporter that while we had taken suitable action on the evidence, or suspicion, of glue-sniffing by a very small number of pupils, we had no evidence at all that any pupils were hooked on heroin.

Although none of the teenagers arrested in Rotherhithe and Bermondsey were pupils of this school, it does show that all who deal with teenagers need to be aware of the temptations, risks and problems which can arise.

Like most schools we include a section in our health education programme to cover the dangers of solvent and drug abuse and we have experienced the ready cooperation of teachers, health workers, education welfare officers and the police in this work.

JK PRITCHARD
Headmaster
Scott Lidgett School
Drummond Road
Weymouth

Concert effort

Sir - The Birmingham School of Music plans to present two concerts of music by the German composer Ernst Meyer on the occasion of the composer's visit to England next July.

Ernst Meyer has close connections with this country having lived in London from 1933 to 1948, during which time he wrote his important book *Early English Chamber Music*. But although well-known here as a musicologist, as a composer Meyer is almost completely unknown.

Both concerts, to be given in London and Birmingham, will consist of songs and chamber music. To enable them to take place the BSM Association is making an appeal for contribu-

tions towards the £500 needed to supplement our own resources.

Contributions, however small, will be gratefully received and will enable us to honour a distinguished composer in the most practical way possible: by allowing his music to be heard.

All subscribers will be listed in the programme. Cheques should be made payable to the BSM Association (Meyer account) and sent to the following address:
DR JOHN BISHOP
Chairman
BSM Association
and ANTHONY CROSS
Head of PE
Birmingham School of Music
Paradise Circus
Birmingham B5 3HQ

Language links

Sir - Somewhat unusually, we have been teaching French and German on an equal basis since 1976. During the first two years in this 11-18 comprehensive school all pupils are introduced to both French and German. Towards the end of their second year they are divided into three groups: one group going on to study both languages; a group going on to study either French or German; a group going on to European studies, which has only a very small language content. At the end of the third year pupils opt for one or two languages in years four and five. The study of languages, however, comes out of the core curriculum at the end of the third year.

We have flourishing exchange programmes with schools in France and Germany. We conceive of foreign exchange as being more broadly based than simply the exchange of pupils studying languages in their fourth and fifth years in school. We receive visits at regular intervals from German orchestras and we take our own dramatic productions to Europe. We take sports groups to Europe and receive them back in exchange. We have built up firm links in this way with our two twin schools.

In the time that has elapsed since we took this unusual decision, our language staff has changed quite substantially. It is interesting that the present staff endorse wholeheartedly the policies that we have developed. I wish now that we could move to teach languages other than French and German to the small group of talented linguists in our senior school. We are exploring consortium arrangements with our nearest school in pursuit of this aim.

MICHAEL HUTCHINSON
Headmaster
The Frank Wheldon School
Carlton
Nottingham

Bullying the workers...

Sir - There is an interesting example of classism in Nick Wood's article on bullying (TES, March 9). "Bullying is also no respecter of social class. The offspring of the middle and upper classes... are just as likely to turn out bullies as those with working-class parents." Didn't the upper classes invent bullying?

JANIE WHYLD
Grimsby College of Technology
Nuns Corner
Grimsby
South Humberside



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TALKBACK

Slow TVEI poison

BERNARD BARKER

As the second phase of the Technical and Vocational Education Initiative gets underway, dozens of schools all over the country are stumbling like dazed punters from a betting shop, clutching millions of pounds of MSC cash in used notes.

It is clear evidence of the demoralised condition of the secondary sector that so many teachers and local authorities are grabbing eagerly at this injection of extra funds without consideration of the consequences. Sadly, this scheme, introduced without consultation or discussion (even HMI were entirely in the dark), has very great dangers for participants and does nothing at all for the annihilation of those left out. The danger is that the curriculum of the schools involved will be horribly distorted with pupils spending 40 per cent of their time within the Craft, Design and Technology area.

At the very moment that the DES has published and circulated to all schools a new red book *Curriculum 11-16: Towards a statement of entitlement* arguing for a broad, common curriculum, TVEI is encouraging a narrow, specialised version. The purpose of the initiative is to foster a rapid development of technical skills in a few, lavishly funded centres of excellence, presumably to meet the needs of high-technology companies in competition with the Japanese and Americans.

Science, for some reason, is not a priority; the emphasis is on practice, not theory. Youngsters attracted into the experiment may find this attempt to guess the future a costly mistake. Vocational prospects may turn out to be better served by a broad curriculum than by concentrating on electronics, computer programming and craft skills.

There is not much objective evidence that there are more jobs in computing than commercial art or music and in any case Hitachi is pointless without artists and musicians. The entrepreneurs of the future are likely to be historians who understand human motives and institutions as experts on semi-conductors.

Pupils will need all the dimensions of a wide curriculum if they are to survive in employment for a couple of decades of rapid change. A computer the size of a matchbox now has the power of a 10-year-old machine of Cathedral proportions. Can any training, however expensive, anticipate the fruits of such a progress? Four or five good grades in a range of subjects remain the careers officers best prescription.

More damaging still for schools is the positive discrimination of TVEI which allocates resources to a relatively small number of schools, pupils, teachers and curriculum areas. The grievances of unsuccessful applicants are easy to imagine but in the longer run the sheep and goats created within institutions will lead to greater bitterness. What can a TVEI school say to its basic economy teachers and pupils when the lorry delivers the VDU's and automatic lathes? Subjects left out of particular schemes (secretarial

courses? mainstream science?) will become Cinderella options; pupils wanting smaller classes and proper equipment will choose engineering and control technology; girls will hear the rhetoric of equal opportunity but will notice the money, extra staff and technicians flowing into courses not previously popular with them.

Less able pupils will struggle with circuit diagrams (so much for "practical" work) and advise next year's cohort to select geography; teachers of literature or foreign languages will know precisely how they are valued as they measure their thousand or so from regular capitation against the £50,000 a year from MSC.



This scale of funding is staggering but at least it demonstrates the following: the Government claim that there is no correlation between resources and quality of learning. When the microchips are down quite extraordinary sums are necessary for progress. Retrospectively it is remarkable that schools provided technical education at all.

A good deal of this money will be spent on salaries and the appointment of Burnham group IX and X head-teachers to direct TVEI schemes represents an interesting example of job creation. Participating schools will have two heads, one responsible for a large number of children and staff; the other for a great deal of money. There will be additional appointments of scale II, III and IV teachers, drawn from the technical areas of schools not fortunate enough to get in on the TVEI act.

This redistribution of CDT teachers may be of doubtful value to the nation but it will also act as a slow poison in the veins of ordinary TVEI. So much positive discrimination will have a cumulative effect. As non-technical teachers see their best pupils opting into favoured areas, notice the generous promotions available for staff willing to work in privileged conditions, and come to appreciate the priorities of their schools a subtle and profound change will come over them. TVEI schools will find it very difficult to do almost anything else.

There will no doubt be good work done for the duration of the scheme. The already booming CDT movement will have received support unparalleled in the past; more for a single area than the Schools Council could commit to all its projects combined. Craft, design and the aesthetics left out, will be stronger for the investment.

It is more difficult to see how the benefits can be sustained when the money runs out or how a scheme so dependent upon expensive equipment and specialist personnel can be developed or imitated anywhere else. Dissemination was always the least satisfactory future of Schools Council projects; in the case of TVEI replication elsewhere must be nearly impossible. The experiment depends upon ideas in Craft, Design and Technology which already exist; it relies on concentrating suitable staff, pupils and resources in purpose-built facilities; as soon as these are dispersed what will be left but the memory of a very glamorous episode?

Participating schools, in a final irony, will have a collection of out-dated computers and robots whose running costs will be beyond rate-capped budgets. There will be a temporary peak, in 1990, of unemployed young people with CSE computing certificates and sufficient economic literacy to understand their plight. High technology cuts labour costs as often as it creates new jobs. Historians of education will wonder that the principles of the comprehensive movement were so willingly sold for such small and such temporary local advantages.

Bernard Barker is head of Shingfield School, Peterborough.

Wragged focus

PAUL DOWLING

Ted Wragg's attempt to put "The Classroom in Focus" (TES, February 24) is most welcome if it is an effort to persuade teacher trainers to make better use of the pedagogical skills of practising teachers. For too long schools have been used by certain unscrupulous institutions of higher education as banks of children for student teachers to practice on for a few weeks each year. Too rarely are efforts made to introduce students to gifted teachers either in the classroom or by using such skilled communicators as visiting college lecturers. How many teacher trainers regularly spend time teaching in schools and attending school staff and departmental meetings? In 11 years of teaching, I don't remember ever seeing one doing so.

Where Ted Wragg and I part company, however, is in what I perceive to be his intention to diminish the importance of the theory, the "so-called" foundation disciplines of history, philosophy, psychology and sociology and, nowadays, one include "curriculum studies".

Polemical diatribes frequently employ inappropriate analogies which both get the laughs and serve to

obfuscate weaknesses in their arguments. Ted Wragg's suggestion that history, philosophy and sociology are about as important to a teacher as they are to a surgeon is a case in point and is problematic in (at least) two respects.

In the first place, while we recognize that practical surgical techniques are an essential element in medical training, surely we also expect surgeons to diagnose, to reassure and to counsel patients and their relatives, to evaluate and criticize current practice, to research and innovate and to cure. Practical scalp twisting is not enough.

The second difficulty with the surgeon analogy is that whilst the ideal notion of the "healthy man or woman" is fairly easy to define, the concept of the "educated person" is beset by problems. In a pluralist society educational aims are not clear cut, teachers are asked to mediate between a culture and a curriculum, to evaluate, to criticize, to develop, to rebuild what they teach, to respond to a changing society and to the demands of their pupils. If such is the nature of a teacher's job then is an academic knowledge in a traditional subject area - say physics - together with a "medical bag" of practical skills enough?

Surely, the "foundation disciplines" are exactly what a teacher, who is more than a technician, needs. History puts the current educational system in a political context; philosophy encourages us to analyse our culture and enables us to criticize false boundaries within the curriculum and to understand substantive ones; psychology encourages us to develop our pedagogy

more objectively - rather than in the way that makes us more popular with the pupils; sociology, possibly the most important of all, reminds us that teaching is a social interaction for socially defined purposes - a closed classroom door will not keep out social conflicts. The newer discipline of curriculum studies aims to draw together the lessons of the other areas so that a practical outcome is possible - a curriculum is, after all, more than a collection of examination syllabuses.

Techniques in classroom practice are invaluable, and I am wholly with Ted Wragg in demanding that they be given their rightful, prominent place in teacher education, but I for one am sick of the mindless cant of the classroom technician who knows that all teaching is about kids at desks doing what they're told by the teacher at the blackboard; the boasting of the charismatic chalk-face expert who never has any trouble and can't understand why anyone else does; the anti-intellectualism of the staffroom (not mine) that cringes from theory because it is associated with time-consuming courses that the authority won't give secondment for; and the unending belief that "practice" makes perfect. Ted Wragg may be astonished that we are so reluctant to place our training effort on the development of classroom efficiency, I am even more astonished that he doesn't seem to be concerned with the purposes to which such efficiency is put.

Paul Dowling is head of maths at Bishopton School, Chesham, Herts.

A bad trip

CAROL DALY

My 12-year-old son sprawled awkwardly on the sofa, eyes rolling, muttering incoherently to himself, beads of perspiration glistening on his forehead as I tried to revive him with strong black coffee. But he was immune to external distractions and slumped pallidly onto my shoulder. Was it glue, drugs, gin? A trip? Yes, I was trying to wake him for his long awaited school trip to Normandy.

"At least the driver's negotiated the first bend safely," commented an anxious parent to me as we watched the coach leave the school drive in dense fog. It was 1.30 in the morning and we were all eager to get back home to bed as quickly as the party had before the rigours of Monday morning hit us. Our children had no such respite in store for them. Their journey was to continue until late the following afternoon.

A few methodical and conscientious parents had organized a four o'clock bedtime for their cosmopolitan children, but to little avail. It seems that the average time at which the typical 12-year-old goes to sleep is 10.30, so whatever the bedtime nearly all the children in the party had slept for less than two hours. And judging from the air of general excitement, the crates of Coke, the carrier bags full of sweets and crisps and the plethora of Travel Scrabble, there would be no sleep on the seven hour journey to Folkestone.

I remembered the graphic description my daughter had given me of her exhaustion following a needlessly long

journey to Heilbronn during an exchange visit earlier in the year. To reach Gatwick Airport in time for their departure the party had left Stockport very early in the morning for the long coach drive down the motorway and through London. Yet we live within walking distance of Manchester International Airport which has a regular flight to Frankfurt.

Even worse was the plight of her German exchange partner who arrived here virtually comatose after a 29 hour journey from her home in Heilbronn. Throughout her stay with us the thought of the long return journey and the prospect of a long drive home when she left she was visibly agitated by the thought of so many boring hours in transit.

When I arranged these trips abroad for my children I did so because I thought travel would widen their horizons and they would gain fluency in French and German. Departure and arrival times did not feature largely in my thoughts, nor were they mentioned until the bookings had been made. Most of the people I have spoken to assume, like me, that the long and overnight journeys are made to cut costs. Yet the trips involved quite a hefty financial outlay as they were and if, for a few extra pounds, our children could have started their holidays in a less exhausted condition, most of us would have been only too willing to pay more.

Our motives were not altogether altruistic, for while 12-year-olds can apparently miss two out of five nights sleep with few ill effects, the same cannot be said for their sleep-oriented parents. The night of Ashley's departure, on which we had five hours sleep, was relative bliss compared with his homecoming.

Scheduled to arrive back at school at about four in the morning, we were told that members of the party would

phone us from a motorway service station at around 2am to give a precise arrival time. With an expected phone call at two and the possibility of leaving the house at 3.30 the chances of sleep were slender. When the very real likelihood of a present-bearing news laden returning explorer arriving home ravenously hungry was added to this, the possibility of sleep was nil.

In fact the party returned home earlier than expected and we were all in bed soon after three. The returning explorer was far too exhausted to provide us with either presents or news and fell straight into bed without getting undressed, not to surface until Saturday afternoon.

When details of the holiday emerged the stupidity of the travel arrangements became even more apparent. As far as I could see, the children, teachers and coach driver had staggered through an action packed three day programme in a mindless stupor. The highlights of the week had occurred on Thursday when the coach hit a car and later caused a caravan to leave the road. The only French that the children heard spoken was that used by the woman motorist when she came to the hotel in search of the coach driver.

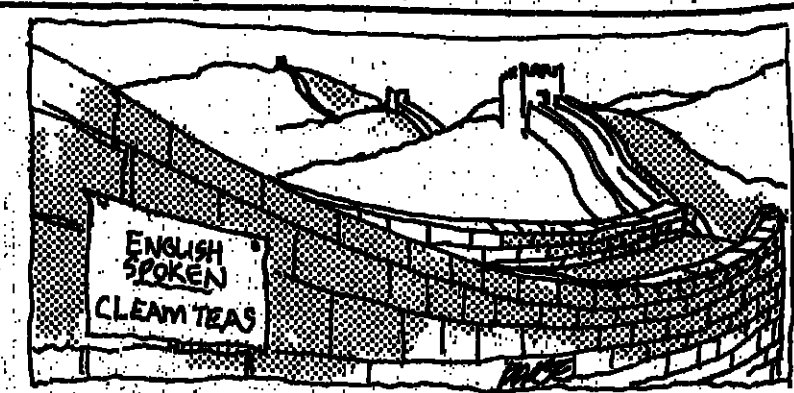
Firms who operate package tours for school parties, as this one was, are tapping a potentially sizeable market. For a £100 or so, a child can enjoy a continental holiday, usually promoted as being of educational value. In theory it is an excellent thing, but when the booking has been made in all innocence, the reality of the way in which our children are going to be transported around so that every conceivable extra cost can be paraded to the minimum makes me wonder just how much profit is being made, whether we are unwittingly playing into the hands of unscrupulous companies who exploit our middle-class values at our children's expense.

Over the Great Wall

DAI XU

Last year we had a good English teacher. Her name is Jenny Feinman. She was from England. She is very kind. She worked very hard but her salary was very low because she volunteered to serve the Chinese people. Her husband was with her and was also a teacher.

With her help we made great progress in oral work. She often showed us films which the English embassy provided and showed us pictures which she brought from England. Before showing the film, she typed materials for us to read and explained the difficulties to us. She understood us very well. We were only teaching in English but she also



set a good example for us. We have been thinking of her and will think of her for ever. She has built a great bridge of friendship between China and England. I hope such friendship will go on for generations to generations. Long live our friendship between China and England!

Today we can speak a little English. The results belong to her. She was not only teaching in English but she also

Xu-Jia teacher at Xiangtan Unit, Hunan, China.

IMPROVING LONDON'S SCHOOLS

The committee of inquiry set up a year ago by the ILEA to report on underachievement in comprehensive schools produced this week a five year plan to boost the performance of working class pupils by:

- a radical system of six or eight week credits for fourth and fifth form courses;
- making physics, CDT, an arts subject and personal and social education compulsory;
- making learning more active and giving

pupils a part in the running of schools;

- making parents more welcome, with home-school councils and five parent governors to each school;
- taking steps to boost teacher morale with better information exchange and half a term off every five years for heads.

Here, and on the next two pages, Bob Doe summarises the main points in the committee's 104 recommendations.

Restructuring the curriculum

"The very structure of two year courses disadvantages many working class pupils. We need to find ways of motivating pupils which do not rely on appeals to goals two years ahead."

"At present, pupils following two year examination courses are forced into excessively passive roles."

Unit credits

The Hargreaves committee calls for a restructuring of the two-year courses in the fourth and fifth years into half-term units. Instead of setting out on a vague two-year educational journey towards nebulous and distant goals, pupils should, from the beginning of the fourth year embark on a series of six to eight week learning units, each of which has a more readily defined and perceived purpose, content, and method of recording. The two-year course would thus be subdivided into 11 or 12 interconnected units, each of which is meaningful in itself and adapted to the time perspective of 14 year olds, and especially many of those with a working class background.

"A half-term unit permits a form of pupil involvement which is very difficult to achieve in a two-year course. The syllabus content is relatively small, so the pupils can see clearly the knowledge and skills they need to acquire over the next few weeks. Course objectives, instead of existing only in the teacher's mind or the course design, can now be shared with the pupils. If pupils see clearly where they are going, they are more likely to be motivated to make the journey."

"Once unit objectives have been shared between teacher and pupil, it is easier for teacher and pupils to negotiate the means by which unit goals can be reached. In other words, there can be joint planning of methods and procedures of work. This takes pupils out of passive roles into active and collaborative roles with the teacher. At the end of the unit, teachers and pupils can overtly and jointly evaluate the extent to which unit objectives have been achieved. This helps to motivate pupils for the beginning of the next unit. It also makes it genuinely possible for the pupils to play an active role in curriculum development and evaluation."

"At the end of each unit, all pupils can be offered a clear and tangible assessment: each unit must give the pupil 'something to show' for the six to eight weeks' work. In other words, we believe that some form of assessment should be devised for every area of the curriculum in the immediate future. The unit credit may take a variety of forms. It might be a certificate which specifies the ground covered and what has been achieved. The advantage here is that pupils can be shown the certificate at the beginning of the unit and thus be made aware of the unit content and have a clear target to aim for."

"Alternatively the unit credit might be a graded test/assessment or profile. In developing unit credits, each school can draw upon its own experience and preferences and also the distinctive needs of different subjects, whilst also taking account of developments relating to the London Record of Achievement (which we see as complementary to our proposals) as well as innovations arising from DES initiatives. Whatever the format of the unit credit, its existence will, we believe, enhance pupil motivation for the unit as well as for the succeeding units, since the units are cumulative. Moreover, the unit credit is a permanent record of achievement (and the

quality of the credit format should reflect this) so that even if a pupil does not ultimately enter for a public examination, the credit remains. It is essential that pupils see the potential value of the credit for use in seeking employment and/or entry into further education.

"In our view all unit credits should make explicit reference to the assessment of relevant practical or applied knowledge and skills. "The problem of allocation of pupils to O level and CSE courses may be eased by the unit scheme. Some of the units, especially those in the early part of the fourth year, may be common to both public examinations, especially when the syllabuses overlap. Some units, especially those in later terms, may be more specific to a particular examination. If the units are carefully designed, the decision about examination entry may be postponed until a later date than is current practice of some ILEA schools."

"In a medium sized or large school it should be possible to allow pupils some choice over the sequence in which units are taken. If the fourth and fifth years are mixed, it might be possible for teachers to offer a wider curriculum content than at present and so allow pupils to exercise choice according to their own interests, needs and aspirations. There are other advantages to mixing the fourth and fifth years. By selecting an appropriate combination of units, the most able pupils can follow an accelerated course and be entered for a public examination at the end of the fourth year, which can serve to encourage these pupils as well as reducing the pressure on them when most subjects are taken at the end of the fifth year. Mixing the fourth and fifth years can also give much greater flexibility to small schools, or schools that have been badly affected by rapidly falling rolls."

Common curriculum

"A common curriculum is the only means by which all pupils can be led to keep their opportunities fully open. If given the choice, boys in most schools drop modern languages which have an entirely unwarranted feminine image... when selection becomes optional, many girls drop the subjects entirely; if pupils are permitted to choose between sciences, girls predominantly opt for biology."

"The case for an extension of the common curriculum is not based on the denial of choice; rather it seeks to prevent the making of irreversible choices at too early an age. To argue that some of the basic choices must be postponed until 16 is to accept in a realistic way some of the major changes in our educational system of recent years. We must now, in the light of massive youth unemployment, think in terms not of the 11-16 curriculum, but of the 14-18 curriculum, for most young people will receive some form of education and training in the 16-18 period. When the majority of pupils left school at 16, the end of the third year was perhaps the appropriate age for choice."

"It is claimed that a large degree of subject choice at 13 plus increases pupil motivation and inhibits potential disaffection and alienation. The purported link between disaffection and lack of subject choice is often merely an excuse for poor teaching."

"The committee favours a degree of choice in the fourth and fifth years, with a common curriculum of 60 to 70 per cent. However, it does not believe the option system should be entirely free, but should include constrained options in which subjects such as art, music, drama and dance, or biology, chemistry and physics are grouped together as aesthetic and science subjects. Pupils would then have to choose at least one from each group."

The compulsory curriculum of every ILEA school in the fourth and fifth form should contain six elements:

Elements	Suggested minimum time allocation
English language and literature	5 periods (12½%)
Mathematics	5 periods (12½%)
Science	4 periods (10%)
Personal and social education	3 periods (7½%)
Religious education	3 periods (7½%)
At least one 'aesthetic' subject	4 periods (10%)
At least one 'technical' subject	4 periods (10%)

This leaves 15 out of 40 periods (37½ per cent) for either additional periods in compulsory subjects or the free options chosen from: Classical and modern languages; history; geography; economics; commercial and business studies; physical education; additional science subjects; additional 'aesthetic' subjects; additional 'technical' subjects; additional English and mathematics.

"The report adds: "In our view it is particularly important that single-sex schools move towards the curriculum structure we recommend, since at present in some of these schools pupils are presented with a fourth and fifth-year curriculum which lends itself to programmes of study lacking balance and breadth."

English and maths

"The committee says these subjects are not under the same pressure as optional ones to make their courses interesting and attractive. "In our view, too many pupils see English and mathematics as 'dull but necessary', and this situation helps to foster highly instrumental attitudes to education by which learning of these subjects is valued not for its intrinsic interest, but because it serves as a means to other ends. There is much to be done by teachers of English and mathematics to make their subjects more attractive."

Science

"We acknowledge that some pupils show little talent for, and interest in, scientific subjects but we are not persuaded by the argument that such pupils will acquire a sufficient understanding of science through science related subjects such as craft, design and technology or home economics."

"In our view a more substantial scientific education is needed if pupils are to achieve an adequate understanding of the natural and human-made world. Moreover, science has a unique contribution to make to general education through its empirical and experimental approaches. We therefore believe that all pupils should continue with some form of science, which should include some physical science, throughout the fourth and fifth years."

"Special attention should be given to overcoming girls' bias against physical science. Schools should ensure that biology is combined with a study of physics or chemistry."

Aesthetic subjects

"It is difficult to make a convincing argument that all pupils should be compelled to follow five year courses in each of the aesthetic subjects - art, music, drama and dance. But these subjects nevertheless represent an extremely important part of our present and past culture and are potentially a rich source of pleasure now and in later life. We recommend that in the fourth and fifth years the creative arts should be grouped together as a constrained option from which every pupil must select at least one aesthetic subject, or a combined/integrated course which contains at

least two of these subjects. In spite of current achievements there is, we believe, evidence of underachievement in the aesthetic domain amongst some pupils: this creative, aesthetic potential cannot be allowed to go untapped. Yet at a time of falling rolls the aesthetic subjects which are sometimes allocated 'low status' by some teachers and parents, are particularly vulnerable."

Craft, design and technology

"A carefully designed and well-taught course in CDT can act as an important link or bridge both between general and vocational education and between science subjects and aesthetic subjects. If these links are properly forged, CDT can play a critical function in making the curriculum as a whole more coherent and more relevant to the lives and aspirations of young people. Moreover, if its distinctive focus on problem-solving is correctly conceived, it provides a balanced education in connecting the academic and the practical, the theoretical and the applied."

"This subject has much to offer girls in developing their creative, intellectual, practical and problem solving skills; in increasing their opportunities in further and higher education; and in widening considerably the range of careers and occupations open to them. We believe that all pupils, both boys and girls, should study CDT. We conclude that CDT should be part of the compulsory curriculum in the fourth and fifth years." CDT should not be treated as an alternative to science or the aesthetic subjects."

Computer studies

"We believe that computer studies should be an alternative to CDT in the fourth and fifth years. All pupils should, during the first three years, be introduced to computers through 'computer appreciation' courses. Computer studies and CDT should be the two elements of a constrained option, called 'technical studies'. Ideally computer studies should also be provided as a 'free option' so that pupils may combine computer studies with CDT."

Vocational education

"We are not against vocational education in school: the curriculum must have a relevance to the world of work and to pupils' future occupations and occupational aspirations. Some evidently vocational subjects, such as commercial subjects, have a justified place among or across the 'free options'. But we believe that there are two dangers which should be scrupulously avoided. The first is too sharp a contrast between the 'academic' and the 'vocational'. All 'academic' courses should in our view contain practical and applied features, and all 'vocational' studies should have academic elements... 'Technical studies' is often confused with the much looser term 'vocational' and we have made it clear that in our view all pupils should receive some technical education in the fourth and fifth years. The second danger is that of creating a 'vocational stream' of pupils, whose main diet is the technical and vocational subjects with a severely truncated broad or general education. The 'vocational stream' too easily becomes the stigmatised group to which 'failed' pupils are steered."

Personal and social education

"In the past this has been a badly neglected area of secondary education. We take the area to include, over the five years of compulsory schooling, careers education, citizenship, community studies, comparative religious education;

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Improving morale

consumer education; education for parenthood and family life; health education; industrial education and work experience; mass media and leisure; moral education; political education; social impact of science and technology; economic education; social and life skills; information technology; and study skills.

Personal and social education tended to be confused and fragmented and to lack coherence. It was important for all pupils: "It is entirely wrong to see it as less appropriate for the more academic and more necessary for the less academic."

"It is in part the diffuse nature of personal and social education and its lack of status as a subject which makes it difficult to disseminate good practice. The authority should appoint an inspector for pastoral care who would have general oversight of personal and social education."

"We believe personal and social education can be examined, particularly by CSE Mode 3. In our view personal and social education should be supported by appropriate assessment methods, perhaps by profiles. At all costs we must avoid the danger of creating courses which suffer the fate of free-floating, inconsequential general studies."

Active learning

"Three out of four pupils affirmed the statement that there is 'too much book learning and not enough practical work'." The committee calls for "more skills based and less knowledge based teaching, together with O level and CSE syllabuses which include assessment of course work as a substantial element of final grading." ILEA teachers should exert pressure on exam boards to ensure every subject involves practical applications.

"It is our view that all subjects have both theoretical and practical or applied elements, and that teachers should strive to achieve a better balance between theory and practice in all subjects. It will require a move away from teaching via didactic exposition and assessing only academic, theoretical achievement, towards teaching which engages pupils in active practical learning tasks in which the achievement of skills and the outcomes of group as well as individual effort, are assessed and valued to the same extent as the retention and reproduction of knowledge; and teaching in which the aims and objectives of learning are closely linked to the processes by which that learning will take place."

Mixed ability teaching

There is recent evidence, the committee reports, of more mixed ability groupings in years four and five in ILEA comprehensives. "It is our observation, however, that mixed ability grouping is not always accompanied by mixed ability teaching. In many classes there is an over-emphasis on individualized learning: pupils work in a social but non-communicative environment and are thus deprived of the benefits of exchange with their peers, and from learning both with and from them. Moreover, such isolation is artificial: in the outside world it is rare for people to work totally independently."

"We know of no evidence, in the ILEA or elsewhere, which conclusively demonstrates that a particular form of pupil grouping is associated with higher achievement or better performance in public examinations; but examination performance should not be the sole criterion by which education is judged. We believe that mixed ability grouping has important social benefits and are not persuaded that, as is sometimes alleged, 'able' pupils necessarily suffer in a mixed ability class. We, therefore, incline to favour mixed ability grouping especially, but not exclusively, in the first three years of secondary schooling. Having said this, and making it clear that we do not support streaming, we nonetheless believe that the form of pupil organisation in a school is a matter for teachers to determine in the light of their professional judgment."

Remedial groups

"The committee is emphatic that even the most disadvantaged pupils should have a balanced curriculum. Insistent and exclusive drilling in skills of literacy and numeracy is counter-productive as a general rule; alienating children from learning. Even when it works, the pupil who has mastered these skills but developed little or no knowledge in any other curriculum area by the end of the second or third year will continue to be severely disadvantaged."

"For children with special needs the practice of copying work they do not understand and struggling with textbooks that might as well be in a foreign language are particularly harmful."

The committee recommends that secondary inspectors should regularly consult the inspector for special education for advice about pupils with special needs and that heads should require all subject teachers to liaise with special needs departments.

Conscious that it learnt so much from its visits to schools the committee recommends that the ILEA sets up an innovation exchange to ensure schools have a fuller picture of developments in the authority.

The report advises the Inner London Education Authority to pursue a generous scheme of early retirement to improve the opportunities for young teachers and to establish more procedures to enable teacher exchanges between schools and sixth-form consortia. Governors should be told to take such experience into account when considering promotions.

Induction

Heads and teacher-tutors should provide heads of subject departments with guidelines to enable them to provide probationary teachers with better support. A component on supporting probationers should form part of the middle management training the inspectorate provides.

The ILEA is recommended by the Hargreaves report to require the completion of an additional report on probationers at the end of their second term and to give all teachers new to London an opportunity to participate in the authority's induction programme. The few probationary supply teachers should also be included in the induction programme.

Heads of department

Headteachers should ensure heads of department have a clear job specification for this existing and crucial role. The London inspectorate should give high priority to requests from heads to help to improve the effectiveness of department heads.

Ineffective teachers

Working-class children were particularly vulnerable to inefficient teachers because they did not have the compensatory resources of the home available to many middle-class pupils. "There is no doubt about the existence of ineffective teachers in ILEA secondary schools. The issue is a matter of concern to heads, teachers, inspectors and parents. Estimates given to us are mainly in



the range of 2 to 5 per cent of the teaching force."

Such teachers must be given every opportunity to improve before dismissal was considered. "We are not entirely convinced that enough is done to help such teachers. In our view some of these teachers' problems stem from difficulties with basic classroom management and difficulties with disruptive pupils and we recommend that the authority provide courses on these topics. More could be done in schools also. Mutual observation and co-teaching can be very beneficial."

The committee says many heads wrongly believe the authority is reluctant to dismiss teachers who have been proved inefficient and, therefore, these heads are unwilling to institute proceedings against such teachers. "Headteachers should be willing to take action when members of staff seem to be grossly inefficient."

ILEA should provide courses in basic classroom management skills and in dealing with disruptive pupils.

INSET

On in-service training, the report recommends heads should designate a deputy staff-tutor with overall responsibility for staff development in the school. The senior staff inspector (general) should be redesignated SSI (staff development) and should establish training courses for school staff-tutors.

Heads are also recommended to establish a representative staff development committee to advise head and staff-tutor on school INSET programmes. Staff development and INSET should become a component in all the ILEA inspectorate's management courses for heads and senior staff.

The authority is recommended to give high priority for, and better financial allocation to, INSET which extends opportunities for teachers to observe and learn from the work of colleagues in other schools. The ILEA should pay for teachers to visit schools outside inner London.

The new inspectorate for pastoral care work should coordinate pastoral curriculum and personal and social education and the ILEA should make these courses a high INSET priority. The committee also says English as a second language should have a high priority in the in-service programme.

Headmasters

The senior staff inspector with responsibility for staff development should establish weekend conferences for groups of senior management teams. Schools should be provided with substantially more administrative assistance to help heads cope with the enormously increased demands now made on schools for reports, statistics and responses to initiatives. To keep abreast of new developments, ILEA heads should be granted half a term's sabbatical leave every five years, implemented from September 1984.

Welcoming parents

Schools must give top priority to involving parents more in the education of their children. "Parental commitment is a cornerstone of the school's success," says the report.

Tutor group associations

"In our view there is a need for a parents' meeting which is smaller, more intimate and less forbidding than the conventional parents' evening covering a whole year group of pupils. We believe schools should establish a tutor group parents' association. Twice a year the association would meet with the tutor and the head of year/head of house. These meetings can be very informal. They provide an opportunity to discuss the whole range of common problems: the curriculum, especially subjects or courses with which parents are unfamiliar; teaching methods; standards of achievement; and social relations between the pupils, especially the recurrent problems of bullying, racism and sexism which so evidently require parental involvement."

Such associations would also enable parents to share their own problems, make friends and offer mutual support.

Home-school councils

But the committee says the people in the best position to generate new ideas on better home-school liaison are teachers and parents themselves. "We believe there is room for an additional body to act as a 'think tank' for home-school relations; a body which is neither the governors nor the present parent teachers associations. We propose the governors establish a home-school council to undertake this work. Its aim is to advise all the existing bodies, especially the governors, on various aspects of home-school relations."

Such a council would consist of at least one parent from each year group; the heads of each year group; the headteacher; the teacher in charge of pastoral care; an educational welfare officer and perhaps some governors.

"In each school a senior member of staff needs to be in charge of home-school liaison and the teacher-parent partnership. The deputy head or senior teacher with pastoral duties should assume this responsibility and supervise the home-school

of tutor group parents' associations and the home-school council.

Governing bodies

Only one-seventh of the governing body of an ILEA secondary school are representatives of parents. "When we remember that the schools are acting on behalf of parents and that parental involvement in education is one precondition of the school's success, this is surprisingly low."

The committee believes parents should make up at least one-quarter of the governing body and recommends ILEA governing bodies be increased from 20 to 23, five of whom would be parents. Four would be elected by, and from, the parents in the school and the fifth would be co-opted by the governors to ensure that any minority groups among the parents were represented.

"An improvement in home-school relations is of particular importance to ethnic minorities, in particular West Indians and Afro-Caribbeans."

Parent teachers

"There has been, in recent years, success in showing parents how they can help their children in reading, but most of this work has been confined to the primary school. This approach must be extended into the secondary sector." It would help many working class parents if secondary schools were more willing to explain their courses and give explicit guidance on the role parents could play.

Truancy

The annual attendance survey in ILEA in 1983, based on a single day in the summer term, showed 85.9 per cent of pupils in school, a higher percentage than the previous year and better than in every year but three since 1972. "Nevertheless the level of absenteeism is a matter for concern," the committee of inquiry says. There is considerable variation between divisions of London and between schools in each division. In some schools more than one pupil in four was absent on that day.

Schools could greatly improve attendance where there was a number of staff with specific

responsibility for attendance who had monthly meetings with EWOs; a list of absentees was produced quickly each morning and immediately followed up by phone or home visits; form tutors ensured registers were accurate and notes explaining absences produced; there are regular spot checks for lesson truancy; there are rewards to individuals or class for good attendance records; there are penalties for repeated lateness and where persistent truants are welcomed back quickly and reintegrated socially and academically.

The committee also wants every school to have an EWO attached to it.

Homework

"The importance of homework cannot be denied. If pupils receive appropriate homework and do it regularly, over a five-year period they will, in effect, be receiving the equivalent to at least one extra year of full-time education."

"If schools take greater care to inform parents of the significance of homework and the need for parental support and supervision, then a better partnership between home and school should reduce the frequency with which homework becomes a tiresome bone of contention between teachers and pupils."

"If schools do not have a proper homework policy and do not involve parents, an unintentional form of social discrimination can arise... parents who have little personal experience of homework may allow their children to neglect or even refuse to do it."

The report also recommends that the ILEA makes premises available after school to enable pupils who wish to do their homework there rather than at home to ensure that pupils do not fail to do homework because of factors beyond their control.

Holiday revision

An ILEA pilot scheme, not widely publicized, attracted 1,500 students to 20 different revision centres for a week at Easter 1982, and 2,000 in 1983. The committee commends this "successful strategy to combat underachievement" and recommends revision centres should be opened for all who want to use them at Easter and Whitsun.

IMPROVING LONDON'S SCHOOLS

Involving the pupils

One cause of disaffection among some pupils is their conviction that they have no real voice in the curriculum or the way the school is run, says the Hargreaves committee.

"All pupils need opportunities to rehearse adult roles and responsibilities in real contexts and the school as a community provides its own kind of reality in which pupils can practise taking responsibility, democratic debate, decision making and coping with its outcome good or bad."

"We believe that education in and for autonomy and responsibility is not incompatible with teachers exercising control as long as this is seen by pupils to be fair and consistent. Comments made directly to us by pupils indicate that they respect and accept the authority of those teachers who combine warmth and approachability with the determination to 'make' pupils work." Strict discipline did not necessarily lead to tension.

School councils

"We believe that school councils and special committees are one means of giving pupils a degree of power and responsibility and the experience of democratic procedures provided that the issues which they are allowed to consider are not limited to trivial, for example, lavatories, food and litter, but include discussion of those of vital interest to them - for example, the curriculum, examinations, school hours, extra-curricular activities."

"We also believe that it is not always in the pupils' best interest for what might seem potentially unwise decisions reached by them to be vetoed by the headteacher or member of staff with responsibility for the council or committee."

Living with the outcome of an unwise decision in the short term is likely to provide a useful lesson in making wiser decisions in the longer term. One way of providing a school council with a real sense of purpose, would be to allocate to it a sum from the school fund and to place upon it the responsibility to decide how this money should be used."

Prefects

"While the comprehensive system has tended to eschew features associated with the selective system, such as monitors and prefects, we believe that in the process some valuable aspects of school life, including structures for giving responsibility and marking increased maturity, have been lost. We have seen some schools where class monitor and prefect systems operate very successfully, are liked and respected by pupils, and appreciated by staff. Pupils could perform many duties connected with daily or weekly routine of the class or form or with younger pupils."

"In those schools where older pupils are given defined privileges, roles and responsibilities, behaviour is noticeably more adult and attitudes of disaffection are less prevalent. Pupils of every age benefit from an 'open' school building from which they are not excluded at breaktimes but can mix both with peers and older or younger pupils. Indeed, it is our impression that there is less evidence of graffiti and other forms of vandalism in those schools where pupils are given such freedoms, where a very real effort is made to provide an attractive and welcoming physical environment, and where there is an ethos of warmth and friendliness and a genuine sense of belonging to a community."

Study skills

Headteachers and teachers should ensure every school has a study skills policy that will not only enable pupils to pass exams but allow them to acquire independent learning skills. "Both syllabuses and methods of teaching throughout the curriculum must provide opportunities for pupils to study on their own and in groups, to tackle problems, to make choices, to arrive at conclusions and to evaluate them."

"Teachers must offer pupils opportunities to take notes, prepare written and oral answers to questions under a variety of conditions; to prepare structured projects; and to develop a variety of skills that will enable them to become efficient learners whether it be at home or school."

Teachers must provide pupils with a variety of activities in class: ensure a balance between individuals; pair, small group and large group learning; provide pupils with opportunities for sustained dialogue with peers, teachers and other adults; and set writing activities for real audiences and purposes and ensure pupils get a constructively critical response.

Learning out of school

Residential field studies enabled pupils to study real and complex problems, in-depth, at first hand and intensely over several days. Visits to the country also broadened the horizons of many London children though there was still room for more "streetwork"; field-work should not have exclusively rural connotations, the report says. Headteachers should ensure all pupils have

regular out-of-school learning experiences throughout the school year as part of a school policy. The authority should establish four new urban study centres in London.

It is particularly important that the under-achieving, disaffected and working class should be made aware of the importance of educational opportunities after compulsory schooling.

Disruptive units

Schools should realise they fail some pupils and that there is no point in blaming this minority for not fitting in. Schools could be made to work for the majority but had their limitations. If the school's efforts to integrate a pupil failed, they had to be prepared to accept the rejection of the school and seek positive alternatives such as a sanctuary unit.

Those who work in such units told the committee that referrals tended to come disproportionately from certain teachers. "This is a delicate matter of course but we feel that too often this fact is acknowledged in a half-embarassed way with no further action being taken. Staff who refer large numbers of pupils to a sanctuary should be given more constructive help by colleagues."

The skills of the sanctuary teachers should be more widely disseminated throughout the school. For 15 and 16-year-olds who reject - or are rejected by - their school the committee recommends a system of complementary education centres of no more than 30 pupils each. These would be for pupils for whom, while reintegration into the main school system was still possible, the likelihood would be that they would remain in the centre until the end of their schooling.

Aspects of achievement

The committee's terms of reference were that it should look into the curriculum and organization of ILEA secondary schools with particular reference to the age range 11 to 16; to pupils who are underachieving, frequently absent or uncooperative; and to working class pupils.

"An improvement in the general level of performance in public examinations is undoubtedly one aim of the authority but in our view should not be the only aim," the committee says at the beginning of its report. It distinguishes four aspects of achievement:

Achievement aspect 1

"This aspect is strongly represented in the current 16-plus public examinations. It involves most of all the capacity to express oneself in a written form. It requires the capacity to retain propositional knowledge, to select from such knowledge appropriately in response to a specified request, and to do so quickly without reference to possible sources of information. The capacity to memorize and organize material is particularly important."

Achievement aspect 2

"This aspect is concerned with the capacity to apply knowledge rather than knowledge itself, with the practical rather than the theoretical, with



the oral rather than the written. Problem solving and investigational skills are more important than the retention of knowledge. This aspect is to some degree measured in public examinations, but it is often seen as secondary and less important than aspect 1. It tends to be more difficult, as well as

more time-consuming and more expensive, to assess than aspect 1.

Achievement aspect 3

"This aspect is concerned with personal and social skills; the capacity to communicate with others in face-to-face relationships; the ability to cooperate with others in the interests of the group as well as of the individual; initiative, self-reliance and the ability to work alone without close supervision; and the skills of leadership. This aspect of achievement remains virtually untapped by the 16-plus examinations."

Achievement aspect 4

"This aspect involves motivation and commitment; the willingness to accept failure without destructive consequences; the readiness to persevere; the self-confidence to learn in spite of the difficulty of the task."

"In one sense, aspect 4 is the most important of all, since without it achievement in the other three aspects is likely to be very limited, both at school and in the future. Working class pupils are particularly vulnerable here, since some of them, because of disadvantaged circumstances, come to school with already low levels of aspect 4 achievement; they rely upon teachers, in a way that most middle class pupils do not."

"When the school believes it is not within its powers to influence this aspect, the teachers begin to explain the lack of achievement in terms of the pupils' background, and these low teacher expectations become self-fulfilling." The ILEA

should set up a committee to assess systematically achievement aspects 2, 3 and 4.

The committee used the ILEA research and statistics branch to carry out surveys of parents, teachers and pupils and committee members visited a total of 61 ILEA comprehensives.

The report says there are inner city areas comparable to ILEA where the results achieved are worse, but results are generally better in Birmingham, Liverpool and Manchester, though the amounts of money spent in those cities per pupil are less (see table 1).

But, the Hargreaves committee says, there is greater social deprivation in inner London than in Birmingham, Liverpool and Manchester. Over a quarter of ILEA's pupils come from one-parent homes, over a third qualify for free school meals and for one in six, English is not their first language.

"There is no clear evidence that the ILEA's additional resources are compensating for the less favourable circumstances. It is possible with fewer resources ILEA secondary schools would fall further behind."

ILEA's exam results have recently improved (table 2). Nevertheless, the committee concludes: "There is an unacceptable level of underachievement (in ILEA secondary schools) and one important cause of this is low teacher expectations."

This was acknowledged both by the teachers they surveyed and those in the schools they visited and this, the committee "take to be a most encouraging feature of our inquiry: the admission of a problem is the first and most important step towards a solution."

The committee says pupils should be limited to five or six examination entries in any year. It is against the practice of entering academic pupils for very large numbers of exams.

The members of the Committee on the Curriculum and Organisation of ILEA Secondary Schools were:

Mr K A Agbo Second Deputy Head, Elliott School
Mrs E Dunford Divisional Inspector
Mr D Felsenstein Senior Staff Inspector, Secondary Schools
Mr R Finch School Liaison Officer, ICI
Dr D Hargreaves (Chairman) Reader in Education, University of Oxford
Mrs M Metcalf Headmistress, Haggerston School
Ms C Moorhouse Assistant Director, ILEA Learning Materials Service
Mrs P Rahman Associate Lecturer, Tower Hamlets Adult Education Institute
Mr L Whitty Head of Research, General, Municipal and Boleynmakers' Union
Their report, *Improving secondary schools*, is available from ILEA Learning Resources, 276 Kennington Lane, London SE11 price £5 plus £1 postage.

Table 1: Pupil performance and secondary school spending in eight inner city areas

	% school leavers with no graded result	% school leavers with 1 or more higher grade passes at O level or CSE	% school leavers with 5 or more higher grade passes at O level or CSE	Secondary school expenditure per pupil
	(1)	(1)	(1)	(2)
ILEA	22.8	40.6	13.7	£1234.1
Manchester	22.2	40.0	15.6	£1066.2
Birmingham	18.2	43.8	17.2	£ 973.6
Liverpool	20.0	41.7	15.8	£ 968.3
Barking	20.2	38.7	11.2	£ 932.4
Sandwell	19.8	37.4	12.0	£ 888.9
Wolverhampton	17.8	40.7	13.6	£122.2
Kenilworth	20.9	35.8	11.7	£ 923.4

Taken from DES Statistical Bulletin, December 1983

(1) Average from sample surveys 1978-81

(2) Average of years 1977-81

Table 2: Recent improvements in examination results in the ILEA

B+ O levels/grades A-C or CSE grade 1	1978	1979	1980	1981	1982	1983
as a % of candidates	12.2	12.1	12.5	12.6	12.1	12.3
as a percentage of age group	8.8	8.6	10.0	10.2	9.9	10.1
% O level entries obtaining grades A-C	60.3	49.7	49.5	60.9	61.5	63.3
% CSE entries obtaining grade 1	8.8	8.7	8.7	8.8	8.8	9.6
Average performance score	14.4	14.0	14.3	14.5	14.9	15.6

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The Indo-china story

by William Shawcross

An International History of the Vietnam War.
Volume 1. By R B Smith.
Macmillan £20.00. 0 333 24246 7.

First things first. I must admit to a profound bias.

Mr Smith begins his engrossing study with a generous acknowledgment to Judith Stowe. Ms Stowe is a leading member of Bush House's Far Eastern Service, one of the people who makes Bush such a formidable organization. She knows far more about Indo-China and Thailand than I can ever hope to learn and she is generous with that knowledge, as Mr Smith testifies. Anyone who owes her his "first and principal debt of gratitude" must have written a good book. R B Smith has.

This is only the first of four volumes in which Mr Smith, a reader in Southeast Asian history at the School of Oriental and African Studies, intends to look at the international context of the Vietnam war. They are going to be controversial. He points out that most of the histories already published concentrate upon American decision making, as if only the best and the brightest were responsible for everything that happened in and to Vietnam. He argues that in fact "the conflict is intelligible only in the broader context of events in the whole of Asia and beyond". It was part of "a struggle for international power". He says that not everything done by the Vietnamese communists was controlled by Moscow or Peking but shows effectively their decision on whether and when to resort to armed struggle in the South after the Geneva Agreement of 1954 - which divided Vietnam - could only have been taken with the consent of their larger partners. He argues that at the time the Geneva Agreement was meant by Peking and Moscow to stick. "In effect the Communist powers were acquiescing in the indefinite perpetuation of 'two Vietnams', thus giving the Geneva partition the same practical status of those of Germany and Korea. Only the North Vietnamese had any real determination to prevent that situation from crystallising." The later resumption of the armed struggle would have been impossible without "a distinct revival of the revolutionary international line in both the Soviet and Chinese Parties (after 1975), which also made itself felt in other areas of the world and led to a general heightening of East-West tension".

Mr Smith will upset a lot of people who have made denunciation of US conduct in Vietnam what he calls an "intellectual industry" since the 1960s. (Since 1960s US policy in Cambodia itself in a book. I await his later volumes with some trepidation.) His knicks over not a few sacred cows in the closest of ways. Apart from blaming the communists rather than the Americans for the collapse of Geneva, he also, for example, declares, "The propaganda image of the National Front for the Liberation of South Vietnam as a purely southern movement created independently of Hanoi, need no longer be taken seriously."

That's true, but there were none the less a fair number of southern communist cadres who

themselves expected that they would, after victory, be allowed independence. The harsh swift with which Hanoi imposed reunification shocked many of them; today almost none of them has any position of responsibility in a regime run almost exclusively by the old warhorses from Hanoi. Some southern communists complain openly to foreigners, if they can get to see them, about this. One of the principal Viet Cong generals, Tran Van Tra, in under house arrest in Hochiminhville (Saigon) because in 1983 he wrote (and was briefly able to publish) a book which suggested that the Viet Cong played a larger part in fighting and winning the war in the south than Hanoi is now anxious to acknowledge. His book was almost instantly withdrawn and banned. (What is interesting is how it was ever published at all.) When I was in Hochiminhville last autumn I asked for a copy in the thriving street book market. All the stallholders hurriedly shook their heads - "Impossible. M'sieur," but eventually one of them provided it wrapped in a dust jacket of a book about Little Red Riding Hood.

This volume begins with Geneva and ends with "Kennedy's dilemma". "Could Kennedy have done anything to avoid this greater level of commitment" to South Vietnam from 1961 onwards, asks Mr Smith. His answer is that China was "probably the key to the situation" and had the US been prepared to permit Peking's entry to the United Nations, this "might have made a significant difference to the course of events throughout Asia". But, of course, that was impossible in domestic political terms for Kennedy even to contemplate. Then, with the open split between Peking and Moscow, Hanoi found itself enjoying more not less support for military struggle from each major communist power. So Kennedy sent in the Special Forces. But, argues Smith, this was not necessarily "the first rung on a ladder of escalation"; Kennedy sought "a new substitute for, not a prelude to, the conventional action which he knew to be inappropriate." Those who have suggested that Vietnam was "the wrong war at the wrong time in the wrong place" have ignored the fact that Kennedy was responding to a situation where most of the initiative lay with the Communists side. Trouble in Vietnam... was avoidable only in the same sense that the Korean War might have been avoided: by surrender, in circumstances where negotiation was impossible. There was a war in Vietnam because that was where the challenge arose, at a moment when Kennedy could not ignore the challenge.

I find the whole Indo-china story utterly dismal. The war was dreadful but the aftermath has been dreadful too. The bloodbath theory was proved right, at least in Cambodia. In Vietnam, Stalinist government has produced no reconciliation. It has always been hard not to be emotional about the subject, in one direction or another. Mr Smith must be praised for having produced a book which does not indulge the emotion he undoubtedly feels. His international history of the Vietnam war is calm, concise, excellent and invaluable.

The elusive Other Ranks

by Alan Ryan

The Common People. By J F C Harrison.
Croom Helm £12.95. Flamingo £3.95.
Popular Religion in the Middle Ages. By Rosalind and Christopher Brooke.
Thames and Hudson £12.50. 0 500 25087 1.

The writing of academic history is a curious business, on the whole academics are quiet and contemplative creatures, more done to than doing in the greater business of life. Yet, the writers of academic histories have generally written as if the doings of the great and the powerful are the only doings there are; they have almost invariably looked at the world from the top, treated the mass of the population as raw material for the projects of the great, or as a problem for the ruling elite to cope with. Even when they have aspired to the objectivity of Ranke, and have been hell bent on saying "how it actually was" and no more, they have almost invariably written about how it actually was for the wealthy, the powerful, the literate and the articulate.

The fault does not lie entirely in themselves. Even if, as Professor Harrison says here, "there is a special kind of intellectual snobbery among traditional historians" which leads them to value written sources above all else, and which makes them the dupes of the articulate and ideologically sophisticated, the fact remains that the history of the common people is exceedingly hard to uncover. Twentieth century historians may now be able to rely on oral history and the results of such projects as Mass Observation; the historian who wants to know what on earth it felt like to be a fourteenth century peasant in a village where the Black Death killed two out of every three of your neighbours either relies on the written record - *ex hypothesi* written from an uncommon perspective in an age when the great bulk of the population was illiterate - or relies on his own imagination. But the latter is the most fallible of all guides; it's precisely because the lives of the common people of six centuries ago may be unimaginably different from our own that we are so eager to know what they were like.

The Common People makes a gallant effort to bridge the gaps in our knowledge. It is no fault of Professor Harrison's that the book becomes richer, fuller, and livelier when we arrive at the end of the eighteenth century, reach the Industrial Revolution and the period which he has already made so much his own. Indeed, it is a reflection of his virtues as a historian that he sticks to the evidence so closely, and does not engage in fanciful reconstructions of the medieval mentality; there's not much here of the *Monty Python* approach in which medieval gossip and tale-bearing sustain a tremendously engaging and vivid - but by the same token somewhat soap-operatic - picture of the life of a medieval village.

Indeed, *The Common People* is rather an old-fashioned piece of work; like many historians who have specialized in the history of labour movements and the lives of the radicals, Professor Harrison adopts a thin Marxist stance - that is, he does not suggest that the movement of history is essentially progressive in dragging mankind through various disagreeable and conflict-ridden modes of production until it leaves them on the doorstep of emancipation, but he does write as if the great question in all ages is "how does the ruling class extract and dispose of the economic surplus which the toilers produce?" This is not to criticize Professor Harrison in the least; if the history of the common people is not to be a feeble kind of social history in which we skip lightly from one pointless fact about everyday existence to another, it has got to be organized around some serious question, and Marx's question has been more illuminating than most.

It does perhaps make the book a bit more predictable than it might have been; and it does perhaps make it harder for Professor Harrison to gratify some of the curiosity he himself feels and which he does so much to arouse in the reader. Popular religion is a good example of the problem. Professor Harrison observes that it is exceedingly hard to know just what the common people believed - for "most of the evidence available to us is not directly about what people thought or believed but about what they did."

They stayed away from church, produced illegitimate children, visited witch men and accused old women of being witches... always we are looking from the outside at something which is interior. But given that the events which capture his attention, from the Peasants' Revolt through the Pilgrimage of Grace to the upheavals of the Civil War, are so often shaped by a consciousness which is simultaneously heretical and rebellious, it would have been worth taking a few risks and worth making a few guesses about how social position and religious or magical beliefs connected up; aside from some slightly surreptitious allusions to Macfarlane's work on the way witchcraft accusations and the social tensions of economic change are connected, Professor Harrison steers us away from elaborate attempts to reconstruct the religious and moral world-view of his subjects.

This is far from saying that we get nothing of their inner lives; from the autobiographies of weavers, printers, foundry-workers and the like we get an impressive picture of what the artisan thought about everyday life and the problems of making a living. As the story draws towards our own time, it can rely on more and more such material, and Professor Harrison's chapter on Self-help and Respectability is an entirely satisfying account of the moral world of self-improving and public-spirited members of the Victorian working classes - even where they weren't entirely respectable, as in the case of George Jacob Holyoake who combined moral rectitude with a deep antipathy to Christianity. Indeed, the nearer our own time we get, the sharper the book becomes. Nowhere is this better illustrated than when Harrison turns on the historians who have professed surprise at the limits of working class support for the Labour Party.

Citing in evidence one Arthur Harding, East Ender, cabinet maker and opportunist, Harrison has no trouble showing that seen from below, the crucial question about politics was "what's in it for me?" On this basis Harding supported the Conservatives before 1920 to keep out cheap imported furniture, organized tools to fight the dockworkers in the General Strike, supported the Black Shirts in the 1930s and voted Labour in 1945. It would be more than a little inexact to call him a "floating" voter - he steered by the steady compass of self-interest. Devoted Labour Party workers were governed by something much less easy to understand - a public spirited morality which owed much to traditional ideas about justice, to non-conformist religion, and a sort of pride in self-help and independence which implied that the working man just had to pull himself out of a subordinate position. And where all that came from even the most devoted historian can hardly be expected to know.

The elusiveness of popular beliefs is a theme of Christopher and Rosalind Brooke's *Popular Religion in the Middle Ages*; this does not get in the way of their main task, which is to give a crisp account of what you might call the visible manifestations of religion through the Millennium and the Jubilee. As much as anything, they are interested in the visual representation of the truths of the Christian faith, in church building and decoration, in manuscript illumination and the like, and the book is nicely filled out with pictures to match. But what they are particularly deft in doing, and what makes this more than a quick sketch with pictures to match, is employing their considerable knowledge of the period in an unobtrusive fashion to point out the great variety of outlooks which sheltered under the Christian umbrella - and sometimes within one mind. Bernard of Clairvaux preached the Crusade and incited greedy northern Frenchmen to go and murder as many Moslems as they could lay hands on; but for all that, he was a genuine man of peace who thought happiness lay within the walls of his tranquil cloister. At all points, diversity is visible - sceptics vie with enthusiasts for relics, learned clerics persecute illiterate heretics, saintly villagers jostle the unruly. Perhaps it is, after all, a mistake to think that there was a "medieval mind" into which we must strain to see; on the face of it, there was no such singleness of mind as that supposed, and these variations on a theme reveal the same chaotic richness of ideas and prejudices as the "modern mind".

A high fog content

Alan Rusbridger on television and terrorism

Terror and the State (three parts).
The First Casualty.
Granada Television.
Televising Terrorism. By Philip Schlesinger, Graham Murdoch and Philip Elliott.
Comedia £12.00. 0 906 890 39X. £4.95. 381.

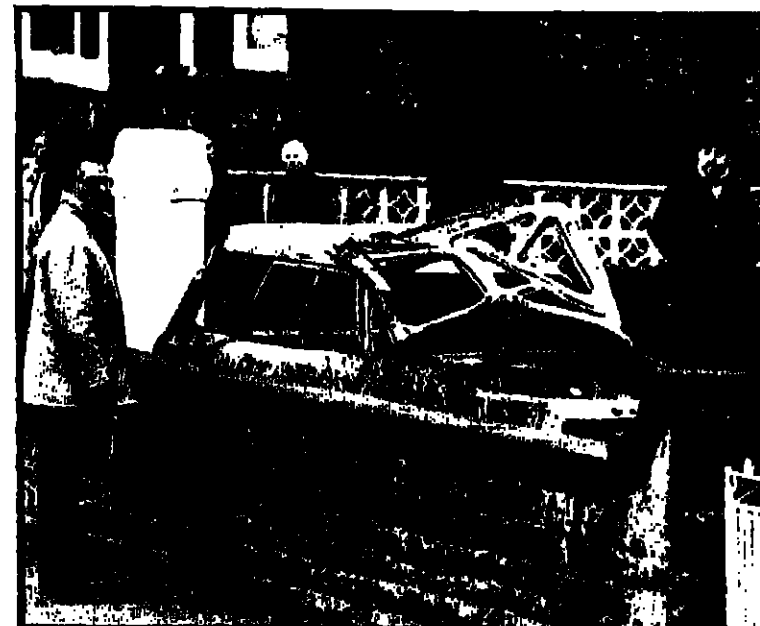
There is a spate of bombings of Arab targets in Central London. Over the weekend of terror a pattern develops: it appears as though Libyans are responsible. Within days a group of Libyans is rounded up. Some are charged; the rest are deported without charges even being laid. There is a mild stir in the press.

That was more or less the scenario played out in London and Manchester a week or so ago. By happy coincidence for Granada Television, the events gave an added topicality to their series of hypothetical discussions last week on *Terror and the State*, broadcast each night at the end of the news bulletins giving the latest on the Libyan bombings.

The technique is to assemble a room full of important people and sit them in a horseshoe around a prowling moderator who constructs and develops a hypothetical scenario, demanding of the participants how they would have acted at any given moment.

The third of the programmes, by even more felicitous coincidence, dealt with a posited campaign of bombings in a Western capital city by refugees from the despotic regime in Equatoria. Assistant Commissioner John Dellow is there to say what he would do as a policeman; he wants to monitor a group of Equatians and goes to the Minister for authority to tap their phones. Over to William Webster, Director of the FBI, for an alternative view; he would not bother to go to the Minister because he wouldn't expect him to grant authority.

Skip then to Andreas Von Schoeler, former West German Secretary in the Ministry of the Interior. Would he grant authority? "I don't think so. If I understand well, he has no concrete information." Mr Dellow reluctantly resorts to other means. There are more bombs. The decision is now placed in the hands of Mr McIlroy Rees; go ahead and tap, he says. And what of Mr Desmond O'Malley, former Minister of Justice, Eire: "The only thing I have heard that would worry me was



Car wrecked by a bomb in Manchester

the reluctance with which the earlier certificates were given."

Thus runs the general form, and it must be said that the technique makes for splendidly entertaining television. Furthermore, it is probably true that, by asking politicians and public servants what they would do in an imaginary situation, rather than what they think of a real situation, you approach a closer and fuller picture of how institutions and governments work. Set against this is the question, always at the back of the viewers' mind, of whether the participants are answering truthfully. Is a politician more or less likely to speak honestly, joyfully and mercifully freed both from responsibility for his actions and from accountability for them. In real life, faced with a bombing campaign, would a director of the FBI really not even seek permission to tap a phone or two because he knew it would be refused? Would a Government minister really turn down such a request in a country such as Britain where he could be 99 per cent certain nobody would ever know? Is it not awfully tempting, with only imaginary bombs and no one, but no one breathing down your neck, to indulge in the luxury of liberality? One cannot help remembering Sir Melford

Stevenson, in an earlier series on press ethics, announcing that he would adopt a view of such a wholly implausible radical nature that Paul Foot, across the horseshoe, exploded in a spectacular denunciation of the old boy's hypocrisy that would - had he been in court rather than a studio - have secured a life sentence for contempt.

And yet, odd flashes of candid - or unguarded - thought do emerge. Here is General Haig on the kidnapping of a US corporate employee in a South American state: "Frequently there is a stated policy and a subterranean policy that runs differently from that. In some respects that's even true of the US Government." And here he is again, asked if he felt an obligation to tell the press the truth: "Not necessarily, no." And again, in programme four, talking of the vital interest of Government to push some fog content out... designed frankly to mislead."

We have Mr James Schlesinger, former Defence Secretary, talking openly of "replacing" heads of strategic and friendly states and of arranging for statutory human rights reports on the country being delayed "about a year and a half". (Laughter.) We have Mr Lloyd Cutler, former

Counsel to the President earnestly inquiring if something is "deniable" before deciding on a course of action that could lead to a politician's murder. And, on a related theme, here is our own Mr Julian Amery, former Foreign Minister: "I'd be very surprised if there weren't a number of people round this table who'd done business with murderers, who've killed off political opponents, either by judicial murder or by other means." Such moments alone - and there were quite a few more - justified the high fog content elsewhere.

The one viewpoint not represented around any of the assembled horseshoe groups was that of the terrorist himself. This is perhaps not wholly surprising and even more unsurprising to anyone reading *Televising Terrorism*, by Philip Schlesinger, Graham Murdoch and Philip Elliott. It is a brief canter through the subject, but analyses quite acutely the political pressures that have created the structures to keep terrorists off our television screens. The book deals largely with the context of Irish terrorism and British television (with comparisons of the PLO or South Africa) and quotes a study by Liz Curtis showing that on only eight occasions have current IRA or INLA members been allowed air time on either BBC or ITV.

Some of the most telling material consists simply of transcripts of interviews between hectoring British television presenters, constantly and bossily, intersecting the Establishment perspective thereby negating any purpose that might have been served by talking to, say, Danny Morrison or Gerry Adams. Elsewhere, the authors' analysis is sometimes spoiled by a wide-eyed naivety about news judgments that leads them to wonder that reports of the Regent's Park bombings should have concentrated on the fatalities and injuries. Similarly, they take to task a *Nationwide* item on the human tragedies caused by the continuing violence in Northern Ireland for "establishing the victim's credentials as a human being... the misery and misfortune of his death," while underplaying his connexion with the police force. When it comes to the books, biographies and films of Sefton the wonder horse and Dog-soldier Rats, though, they have a point.

I'm all in favour of workshops on set texts simply because they provide the opportunity to use actors as tools of experiment as well as expression. Actors can step in and out of role, provide commentary on personal interpretation and even modify their approach using suggestions from an audience of willing students. Most importantly, they can make Shakespeare immediate, modern and relevant. This workshop failed to do any of these things.

Nick Baker

Next week

Children's literature:
an international
perspective to mark the
Bologna Book Fair;
Frank Field on
unemployment;
English as a foreign
language: special
articles and reviews

Cliff and Bernice Moon's *Look at Books*, reviewed in *The TES* on March 9, is published by Ginn and not as stated.

Chocolate papers and proposals

The Aspern Papers. By Henry James (adapted by Michael Redgrave).
Theatre Royal, Haymarket.
Marriage. By Gogol (a version by Mike Alfreds).
Lyric Theatre, Hammersmith.
September in the Rain. By John Galsworthy.
Gate Theatre at The Latchmere.
Pula/Inbumba. By Mafemela Manaka.
Tricycle Theatre.

The Aspern Papers is chocolate-box theatre at its best. Its beautiful setting and charmingly appropriate costumes (Carl Toms), dramatically chiaroscuro lighting (Joe Davis), unobtrusive direction (Frith Banbury), sextet of accomplished actors including three international stars, are all perfectly suited to Haymarket's Theatre Royal and its clientele. Small wonder that advance bookings have broken all previous records.

Henry James's Venetian novella, based on William Graham's Florentine adventure with a former mistress of Lord Byron, is skillfully adapted by Michael Redgrave who (as a great actor) knows how to make it work theatrically, with thumping good roles and well placed climaxes. H J tricks his way into nonagenarian Juliana Bordereau's house in pursuit of material on the poet Aspern whose "Divine Juliana" she was when young, fierce niece Tina reveals the existence of letters and memorabilia to which her aunt denies access but which might be

open to a member of the family. Aspern's treasure has a price: marriage. H J withdraws; the papers are burned.

For all its literary associations, it is a light-weight romantic thriller. Its revival is welcome for the chance to see Vanessa Redgrave on top form. Everything she does springs from her extraordinary grasp for inhabiting the very soul of the characters she plays. Her slightest move, sound, gesture compels belief that what is happening to her has never happened before. Miss Tina's pathetic failure to prompt H J's proposal is heart-wringing.

Not one but four failed proposals figure in Gogol's *Marriage* in Mike Alfreds's version from a literal translation by Boris Isarov. Indolent Podkolyosin dreams of marrying. He joins Friedeg, Anuchkin, Zhevakin, woeing Agafya a merchant's orphaned heiress. He wins but, reluctant to the last, escapes marriage by leaping from a window. The plot being minimal, interest focuses on characterization. Gogol presents a gallery of grotesques to play out the repetitious heavy-handed comic line. Paul Dart's over-decorated set matches Mike Alfreds' directorial approach. His actors go over the top shouting, huffing and puffing in vain attempts to raise fire. Doubtless Gogol's merciless exposure of his contemporaries' class-conscious money-based approach to marriage was wonderfully satirical then and may be very funny to Russians now. Theatrical humour is a notoriously bad international traveller. I found it hard

going. Easier, though still caricature, is John Galsworthy's *September in the Rain* directed by the author, acted by him and Jane Clifford, presented by Hull Truck. Jack and Liz go to Blackpool for their honeymoon and ever after. We go through the joys and trials of that first week together with "now to do" on a crowded beach or a rain-drenched promenade. Jack's violent temper almost provokes a separation but all comes right and old age sees them a reet Darby and Joan. The stock types are well presented, though Jane Clifford is overstretched assuming other characters, and the stock situations of northern provincial life seem familiar. It is amusing, sentimentally touching, rather more how we like to see ourselves than perhaps we really are.

How things really are among blacks in South Africa can be seen in *Pula and Inbumba* presented by the Four-man Soyikwa African Theatre. The nativity of both plays argues for their truth: blacks are shown oppressing blacks. Pula tells of drought and famine driving Israel from his tribal home to be a herman in a big city shebeen. Inbumba is a painful account of life on a prison farm. Songs, dances, mime carry the action in both plays and are their best recommendation. The spoken dialogue is sometimes hard to follow but the message is plain: "Baby, you have destroyed us." The innocent are always guilty.

John James

Ham shop

Hamlet in Context.
Mermaid Theatre.

The New Shakespeare Company, sponsored by Lloyds Bank, started its series of Shakespeare Theatre Workshops this week. According to the publicity, the sessions are aimed at English O and A level students and designed as "structured teaching exercises". I have grave doubts about the content of *Hamlet* in Context, in which there seemed to be little evidence of structure.

The session started predictably enough with a biographical sketch of Shakespeare as man of the theatre - useful revision for A level students and a good enough primer for others. Teacher/presenter David Whitworth promised unusual information and useful cross references "to dazzle the examiners". In fact most of the references we got - on Peppys's reactions to the plays, on the various definitions of tragedy and comedy and of thematic links in the major tragic works - seemed distinctly unstructured and at times not terribly relevant to the task of creating a context in which to see *Hamlet*.

Also in the first half we were presented with fairly lengthy excerpts from *Learn, Obello and Macbeth*, all crisply and clearly acted, together with a duologue (played over a chess game) between Hamlet and Horatio in which "To be or not to be" was paraphrased. I found Whitworth's reliance on, and promotion of, paraphrase frankly perturbing. Surely the idea that Shakespearean language warrants literal translation is something literature teachers want to get rid of rather than recommend.

Nevertheless, I approached the second half of the workshop with optimism. However sketchily the ground work had been done, at least we could now get down to the play with some degree of seriousness. Instead, what was served up was a lively but irrelevant demonstration of stage fighting based on the murderous final scene of *Hamlet* followed by a make-up demonstration which was lost to the rear two thirds of the audience. Eventually we did see some key scenes, clearly presented and well acted but at the end I was still asking myself *Hamlet* in Context with what? All that had taken place was really no more than a dramatized lecture. Such contextualization as there was was mostly historical and seemingly almost random.

I'm all in favour of workshops on set texts simply because they provide the opportunity to use actors as tools of experiment as well as expression. Actors can step in and out of role, provide commentary on personal interpretation and even modify their approach using suggestions from an audience of willing students. Most importantly, they can make Shakespeare immediate, modern and relevant. This workshop failed to do any of these things.

Nick Baker

Lloyds Bank Schools Theatre Workshops at The Mermaid Theatre, Hamlet in Context until March 21. Exploring Macbeth March 19, 20, 22, 23. Winter Tales March 27 to 30. Box Office 01-935 58843526.

In my recent article "Hand in Glove" (TES March 2) about an educational puppeteer I quoted Mrs S M Wynne, who teaches at Beechwood Primary School, Crewe, as having said she was "less than strong in the art and craft department". I realize that I took her remarks out of context, and apologize for any distress caused to her.

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BOOKS

CHILDREN'S LITERATURE

Hooray for Helen Oxenbury. Her first picture books for children are a constant delight for tots and adults and will stand almost constant re-reading as more details are discovered in the drawings and crisp, realistic dialogue which never fails to amuse. The Check-up, The Drive and Playhouse are welcome additions (Walker £2.95 each). You can get a lot of fun even out of the endpapers, which depict characters at each locale, whispering about the antics of the naughty little boy in The Check-up or stuck in a traffic jam in The Drive. "We've just had a really great time," the hero tells his friends after having spent hours on the motorway and vomited in the car. Ms Oxenbury is sympathetic to the vulnerability and the resilience of childhood as her sniffling but gallant heroine in Playhouse demonstrates. More, please, ours are failing to bits already.

The unplesant Little Brown Bear, eponymous hero of a series by Claude Lebrun and Danièle Bour (Methuen

£1.50 each) goes through similar day-to-day traumas. Little Brown Bear's Playtime, Little Brown Bear's Breakfast, Little Brown Bear's Snowball, Little Brown Bear Can Cook! Little Brown Bear is Big! follow what is clearly a stuffed toy through his simulacrum of a life. I was quite eager to see what happened in Little Brown Bear's Bad Day but it's just what you would expect. Father Bear goes away to his son's dismay, Little Brown Bear gets variously cross, bored and frightened and finally goes to sleep in front of the television, clutching his rag and teddy (a nice touch, I must admit). Little Brown Bear Falls Between Two Stools: he is not enough like the small child he so clearly stands in for, nor fantastic enough to exist in his own right.

Ulf Löfgren's hero Albin is genuinely grotesque but somehow lovable. This freckled and lumpy little boy has a series of magical adventures which end by depositing him back in reality with a bump. Albin and His Friend Ali Baba, Albin and the Magic Wand, Albin and the Parrot and Albin and the Rainbow (Macdonald £1.75 each) provide pleasing first excursions into fantasy, neither too gruesome nor too tame. I specially liked the nose with which the rainbow was drawn.

Victoria Neumark



Donald MacDougal outside the telephone he helped to build in order that a telephone could be installed on Luing in the Inner Hebrides. From *Some Lovely Islands by Laila Thomas* - "a tribute to the small islands off the British coast". Penguin £5.95.

Chief and indians

The Highland Clans. By Moncreiffe of that ilk. Bantam £12.95. 0 09 144740 2. North American Indian Wars. By Richard H. Dillon. Arms and Armour Press £11.95. 0 85368 590 8.

It might seem a little eccentric to link two lavishly-illustrated monographs which have only the coffee table in common. A common theme there is, however, and it is the destruction of a culture. The subjects were very different - in culture, sophistication and ultimately in their fate. The words of General Sherman: "the only good Indian is a dead Indian" and the Duke of Cumberland: "I will give them a battalion who will make the laws" are notoriously quoted as evidence of premeditation to genocide in the closing of the great frontiers of the Western prairies and the Western Highlands. It would be truer to describe the great tragedy as the shadow side of the working out of a "manifest destiny", the civilizing mission... the corralling and, if necessary, extermination of races regarded as barbaric by their commercially rapacious contemporaries, and "in the way".

It is a story which can stand repeating (after all there are one or two frontiers left, like the Amazon basin or Tibet) and although an urbane Highland gentleman like Moncreiffe may protest that his Gaelic lineage has no place in such company, as Vice-President of the 1745 Association he would surely not deny the evidence of a parallel, even if not a precise one.

The aftermath of the 45 swept away the culture of the Gael, consigning his music and poetry to limbo, from whence it was rescued by the "Ossian myth", camouflaging the tartan with earth dyes and harnessing his martial ardour to the service of the Government. For the Highlanders, left with

little more than pride of blood, genealogy became, markedly, a touchstone of identity. There are those who would claim the existence of a "tartan myth", as pervasive as Ossian's, and the most recent attempt to debunk it was an argument to the effect that the kilt as now worn and clan tartans were a post-45 invention and that Highland culture derived essentially from Ireland. Moncreiffe of that ilk is just the man to part the Highland mists and indicate where the clan bards grounded the deeds of their chiefs and heroes in historical record and where they can safely be left to Ossian.

He is a lucid and witty guide through the intricacies and eccentricities of a system which if dead in its original home, lives on worldwide in a series of clan associations, formed largely from the descendants of the survivors of the Highland clearances, and which are still held together by loyalty to their chiefs and name. They, or the laymen whose sympathies were, perhaps, engaged by Peter Watkins's *Children*, will gain much from this book.

Many of the clans whose traditions, ancestral lands and antiquities Moncreiffe describes, meet occasionally as guests of the chief. Canadians and Americans took by the hundreds to brass and lochs from which their ancestors departed to join overcrowded emigrant ships - thus making room for sheep, now almost the only inhabitants of the glens. Ironically, a photograph shows two Mackintosh chiefs at such a gathering - one of whom is an Indian chief, Valdo L. McIntosh, Principal Chief of the Creek Nation, and leader of a tribe of 20,000 who inhabit McIntosh County, Oklahoma, is a direct descendant of the medieval Captains of Clan Chattan, through a Jacobite exile.

Richard Dillon follows in the footsteps of Dee Brown, but at a fairly pedestrian pace. His book eschews the "concept" of recapturing the Indian past through their own verbal, tribal

tradition, as used in *Bury My Heart at Wounded Knee*. This is a detailed recital of the whole lamentable story of the association of red and white man from Columbus on. There is no bibliography and it is therefore difficult to tell how far the author has drawn on papers of the Indian Bureau and of the "damned Quakers" and other groups accused by the US Army of interfering in the process of making the West for settlement. Due Brown made much of the policy - similar to Cumberland's - of starving recalcitrants into submission by destroying their staple, the buffalo. But Dillon is largely content to describe the running "battles" of the so-called war (for which the US Army issued a campaign medal).

He has made good use of the archive of Library of Congress photographs of the red men at the height of their humiliation. They stare impressively at the camera... Sitting Bull, Gull, Rain in the Face... the defeated posing before going into the arid arena to reenact, in Buffalo Bill's Wild West Show, their tragedy to make an American holiday.

John F Crossland

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Susan Lloyd

lingo

In an age when peace-keeping strategies are known colloquially as MAD (mutual assured destruction) and NUSC (nuclear utilization target selection), military euphemisms naturally abound.

Officials can conceal many an unpleasant truth. Demographic targeting really means aiming weapons at population centres rather than at military targets; soldiers are known as human assets. Civilians, evidently not an asset, are dismissed if killed as collateral damage, caused perhaps by incontinent ordinance or bombs which fall on people by mistake. Unacceptable damage is the level of carnage or destruction needed to make the enemy give in.

There is also a kind of Newspeak

Infinite variety

Physics. By E L Hanson. Hulton £5.95. 0 7175 0905 2. A First Physics Course. By R B Arnold. Stanley Thomas £2.65. 0 8590 119 1. Essential Science: Physics. By P E Bloomfield, R Saul and S C Thompson. Oxford £2.50. 0 19 914094 4. Ordinary Level Physics. By A F Abbott. Heinemann Educational £5.95. 0 435 67010 7.

To mix quotations, infinite variety's the very spice of life. If ways of presenting standard school physics are finite, these four examples show what vast differences can exist, and how spice and flavour may be a matter of individual choice.

Some authors prefer a detailed, academic text with much more than the essential bare bones of an examination syllabus included; others prefer the theory set out in the briefest terms, perhaps in easily-assimilated capsules; yet other alternatives have an emphasis on practical experimentation, either by demonstrations or a heuristic method.

A further grouping of physics books for the middle years could recognize two major sets, one where a pupil is made virtually self-sufficient, and the other where the bulk of the explanations and guidance is left to the teacher, so that the work becomes effectively a substitute for a pupil's personal note-book. Members of either set could help in examination revision.

Paradoxically, with these generalizations covering the field as a whole, not every runner comes neatly into any one classification. Mr Hanson, for

example, subtitled his book as "an examination course", and it is very suitable indeed for those requiring physics as a main subject at GCE O level or examinations of a similar standard. At the same time, it is not just a "pass" entry on a certificate that dominates his approach. Any average or better-than-average pupil should certainly obtain that pass after studying the subject with the aid of this book. More important, he (or she, a point which will recur later) will have grasped the essential principles of physics and be in a position to apply acquired knowledge and understanding in later years.

That is good educational practice and a hallmark of good teaching, both qualities well displayed throughout this large book. It is an extremely full text, but it is well planned and presented, with due stress on salient points. Diagrams are clear and relevant, and there are collections of questions, many from past papers.

If there is a weakness in this work it is that practical exercises are relatively scanty. But this is Mr Hanson's deliberate policy, for he believes that teachers should select and present demonstrations and practical work "from their own resources". Many can do so; some could benefit from stronger guidance.

The coverage of Mr Hanson's physics need not be recapitulated. It is closely related to the usual syllabuses. So is that of the other books, though Mr Arnold is much more sparing of words, largely presenting the facts through simple experimentation. His is an introductory book intended "for pupils between 11 and 14... as a good foundation for exams at 16+". It

should be effective, but the book could also be useful as an end in itself.

Many pupils can appreciate the fundamentals but find the struggle to proceed further somewhat overwhelming. This work could satisfy them. Mr Arnold also rejects any belief that "physics is a boy's subject". He pushes "unnecessary scientific jargon and mathematical descriptions" in one side, so that "key concepts can be clearly seen".

The Oxford book, too, concentrates on "essentials" for "students of various abilities", while carrying the work up to O level. This is an honest attempt to provide a course that will get pupils through their examinations. It is accurate and concise, not very demanding mathematically, and particularly apt for those reaching their ceiling at this level.

Mr Abbott's book will be familiar to a great number of teachers. First published over 20 years ago and often reprinted, it now appears in a fourth edition with much of the text overhauled. The established framework is maintained, but it is thoroughly up-to-date. The 1983 definition of the metre is included, there is a substantial section on the growth of nuclear physics, "the thermionic diode has given way to its solid-state counterpart", and so on.

This quartet comprises a good entry in the madhouse of books of this nature. If the first and fourth appear favourable for the high-flyers, all four have a place agreeably matching the needs of some pupils - for the variety of pupils is at least as extensive as that of their books.

F W Kellaway

Micro-biology

Basic Biology. By J P Margham and W G Hale. Collins £4.50. 0 00 327747 X.

Subtitled "An introduction to biological computing", this book aims to help correct the misconception that the only biologists who can achieve numeracy are those who are good at mathematics. The authors suggest that, in a manner similar to that adopted by the Palmists, students who habitually use simple computers can improve their abilities to handle numbers and data almost subconsciously.

Most of the text is devoted to a selection of basic programs, but there are a couple of preliminary chapters which provide an overview, as well as a very short introduction to micro-computers. Chapter three, the main part of the book, contains 17 listings of

variable length, covering a range of subjects which relate to the O and particularly to the A level GCE syllabuses. These, the first somewhat restricted item, called "Taxon", enables the student to classify himself, while some of the others simulate mark-recapture experiments, transpiration, insect growth, temperature regulation, genetics, predation and migration.

Though a broad understanding of the areas concerned is an obviously important prerequisite, the authors do give essential biological background information, as well as thought-provoking questions about the topic under consideration and explanatory comments on specific programs. In the ultimate part of the publication, students are encouraged to have a go themselves, so the essential features of Basic are outlined with clarity, with the final chapter also providing ideas for

the improvement of the listings in the text and some new simulations.

A BBC micro was used to compile the programs, but they have been structured, as far as possible, to run on many other commonly used machines. Tests for potentially troublesome statements are detailed, so that users should not experience the eternal frustration of the crash!

As a final thought, since most elementary educational microcomputer software seems to be written in Basic, why buy uncopyable discs and tapes at inflated prices, when sensible publishers like Collins waive copyright on good value alterable programs in books like this? With the Beeb, even graphics can be relatively simple. More please!

Peter J Baron

Chemical change

Chemistry for You. Book 2. By W E Latchem. Hutchinson £3.25. 0 09 144511 6. Certificate Chemistry. By A Atkinson. Longman £3.95. 0 582 33135 8.

This book has a similar feel to its stablemate from Hutchinson, *Physics for You* by Keith Johnson, one of the most highly rated physics texts. Both are challenging, eminently readable and invariably enjoyed by the students. Strongly recommended.

Certificate Chemistry has been selling steadily for 20 years. Now in its fourth edition, the material has been extensively redefined to bring it into line with modern syllabuses. Sections on periodic table, rates, cells and organic chemistry have been considerably expanded, and there is greater emphasis on practicals, notably in formulae and equations. The explanation is clear, with good diagrams of modern apparatus. However, the emphasis and style maintain the traditional virtues of thorough explanation, numerous questions (predominantly of essay type), and detailed information. The language level may prove to be a difficulty for some moderate students. A very sound, traditional textbook.

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Chris Mason

New wave

Multiple-Choice Questions for A-Level Chemistry. Second Edition. By D. Stebbins. Butterworth £3.95. 0 408 01455 5.

This invaluable book was universally praised when it was first issued, as indicated by excerpts from previous reviews which appear on the back cover. It provides multiple choice tests, grouping questions into fifteen topics such as d-block, enthalpy changes etc., each containing upwards of 30 questions giving a wide range of question types generously made available by exam boards from past papers. However, the great virtue of this book is the answers. Reasons are given for the choice or rejection of each answer, the correct answer being given at the end so that students will read through the clearly explained argument rather than just tick or cross their answers.

The new edition introduces 50 or so new questions, reflecting changes in approach by exam boards. Assertion-reason questions, the bane of many students' lives, are now omitted. All A level teachers are urged most strongly to purchase this book.

Chris Mason

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CAREERS & OCCUPATIONAL INFORMATION CENTRE

RESOURCES

I was the first studio session of the term and there were the inevitable technical hitches. While the panel waited under the studio lights, the control room tried to get its act together. The run through had not been without problems - camera angles, voice levels and a touchy celebrity.

Following the inevitable "What made you decide to be a policeman, PC Collins?", the presenter had asked an unscripted question. "Can you tell us how old you have to be to become a policeman?" "Why do you ask that?" he came back crisply. "Do you think policemen are too young to handle tricky situations responsibly?" Emma, 15, and only her second time in the hot seat, was momentarily taken aback. She had nodded in a spirit of professionalism. "I thought it would be interesting for viewers" she said recovering herself. It was a revealing piece of interviewing. And not, perhaps, what you might expect from the fifth year non-examination stream.

But Emma, her co-presenters, the camera and sound crew, vision mixers and programme director are all part of an unusually successful experiment in social education - the Threshold Project at Longhill School near Brighton - a winner of one of the RSA's Education for Capability awards.

It has been running since 1978 and is a direct response to the problems of disaffection which blighted the upper school. "At that time" according to Mick Peck, deputy head, "probably 10 per cent of the older pupils were positively anti-school and 10 per cent were passively switched off. It was felt that it must be the curriculum which was at fault."

Thus Threshold was conceived, to offer a broad, sometimes vocational, course, giving students a wider experience of the world around them and plenty of opportunity to develop skills and make decisions. It occupies half the timetable (in four-period blocks), runs alongside a core curriculum of four CSE subjects and majors on Communication and Social Skills, which is how this fifth year group came to be producing its own TV magazine programme in the studio at the nearby Brighton Polytechnic.

The project was devised by one Terry Ferber who has since moved on and it is now being developed by Andrew Timmins, the new head of Threshold. I was able to talk to both of them when I visited the school early this year. Andrew explained the current fifth-form work.



In the hot seat

Susan Thomas visits the Threshold Project at Longhill School, winner of an RSA Education for Capability award

"This term they are making a half-hour programme, something like *Nationwide*, about the local area. It'll have a news section, weather, a day in the life of a footballer - the girls are doing that with the players from Brighton and Hove Albion - and an item on the police. This morning's interview with PC Collins, school's liaison officer, was part of it. The other half will be a drama documentary about a couple of PCs called out late at night to deal with a disturbance. The kids'll script it, shoot it and the police will help by bringing along a car for the filming."

Longhill pupils use the polytechnic's studio - their Philip's Video 80 colour camera, a small black/white camera for captions and Sony Umatic low band recording equipment with dub-off facilities. For outdoor work they use the school's JVC Video Portapak and colour camera.

What the school lacks in equipment and expertise, it is able to borrow from the polytechnic and when the shooting is completed the students go back there to learn and do the editing.

The close cooperation between Threshold and the outside TV department is the result of a School's Council Project on "Communication and Social Skills" developed by Carol Lovac and Michael Weiss. This is the subject of their book of the same name published by Wheaton in 1981.

"We find they learn a great deal about decision making" says Ferber. "In choosing the theme for the programme they are deciding what they will study. Then they have to discuss the issues, do the research, write the script and film it."

"Once shooting starts everyone is under pressure and tempers get frayed but that is the time when group support, tolerance and problem solving abilities are most important."

Timmins, who had only been involved with the project since September 1983 is impressed by the improvement in self-esteem, confidence and ability of the Threshold students. "For a start," he says, "their morale is good because they know they can make a better programme than the staff - we

tried it and they won hands down. And, perhaps for the first time in their lives they can see that they are doing something really well. Something the rest of the school recognizes. "They quickly appreciate one another's talents - they're careful to appoint people who will make a good job of being director or vision mixer - and several unexpected leaders have emerged as a result of the work."

"Of course they are developing technical skills which they may use in their jobs, probably more important, they are learning to take responsibility, work to a deadline, to analyse problems, collect information and evaluate the finished product."

Surprisingly, even when they are not in the hot seat, they are working on their language skills. "In order to produce a simple *Jackanory* type programme," says Timmins, "they have to be able to write a story, break it down into paragraphs, so that each one can be illustrated, and write it on the story board. You have to remember that normally many of the kids are really reluctant to put pen to paper."

The finished programme is the goal at the end of the year. It takes the place of the examinations which motivate (or fail to motivate) the rest of the upper school. The impact on the students and staff has been dramatic, says the deputy head. Absenteeism is down and even in the core curriculum, subject teachers report a marked improvement in attitudes.

And the pupils themselves - what did they think of the course? "You definitely become more confident - you have to take a turn at interviewing and that shows up your mannerisms - that's very useful for job interviews."

"I've become much more critical of things on the TV since we've been doing this and I notice when the interviewer doesn't get proper answers from people."

"You have a much better relationship with the teachers - partly that's because here (the studio) we know more than them anyway - but it's different."

The morning's filming was successfully completed. After one run through, the team produced a successful six-minute interview. "Do you think all police should carry guns?" "Guns are a facility - not all police need them at the moment." "Do you mind wearing a uniform - does it make you feel different?" "Uniform is a sort of psychological armour." It was, said the polytechnic technician, the best piece of work so far.

notes

BBC MICRO CARTRIDGE

A novel method of making the BBC Micro's ROM slots accessible to naive users has been devised by Commscot Ltd of Glasgow and was launched at the Scottish Computer Show on March 12. The device is a cartridge called B-KWIK.

Taking advantage of the seldom-used speech synthesis cut-out at the left of the BBC's keyboard, Commscot have provided an instant-loading, fool-proof medium for BBC software. The B-KWIK cartridge is eminently portable, being robust, compact and lightweight.

John Ramsay, Commscot's managing director who invented B-KWIK, expects that software houses will soon see the advantages of publishing their software in this new medium. The extra price (around £6 or £7 on top of the cost of the program) would soon be offset by the added convenience and reliability.

Before a BBC can run B-KWIK cartridges, it needs a permanent modification which costs just under £30. Commscot expect to turn machines around in a few days. There are no side-effects from the modification (unless you unexpectedly want to use speech chip) and it is an attractive solution to the problem of users who have to unscrew their machine to swap the chips around.

Further details: Commscot Ltd, 30 Gordon St, Glasgow, G1 3PU, 041 226 4878.

WRIT LARGE

*"Happy Birthday"
"Merry Christmas."
"Get Well Soon"*

During the past four weeks a train containing an exhibition on the theme of letter writing has been travelling around major cities in England. Over 20,000 people, 15,000 of them school children in organized school parties, have passed a long its corridors to see exhibits on forms of letter writing, calligraphy, and the postal service and to try their hands at wordprocessing and a typing training system.

The exhibition was put together by the Letter Writing Bureau, a body set up by the stationery and pen manufacturing industry and the Post Office to raise the standard of written correspondence and presumably to fill a gap between computers or, in the case of the BBC, between programmes. All television fillers originate with and are paid for by government departments, principally the Home Office, DHSS, DES, Department of Transport, Health and Safety Executive, and DoE.

In the case of *Bedtime Routine* instructions went out for a film on fire safety in the home, featuring sockets, doors and cigarettes. Not on the face of it an inspiring brief, but it went to Diana Humphrey at the Central Office of Information which deals with all the television

fillers. As in-house writer/producer she was responsible for writing a script, setting everything up with an outside film company, and co-producing. In a flash of brilliance she wrote lyrics and an action-script, called in Piers Haggard and Tudor Davies from the *Pennines from Heaven* team and the end result was a production with enormous style and fun. Yet it made all the required points seriously enough for the Home Office to approve and to satisfy the ITCA (Independent Television Companies Association) which measures all television fillers against strict regulations.

Unlike the government's paid airtime campaigns: *Think Bike*, the *Drink/Drive* series and YTS films, for example, television fillers are low-budget productions. The success of the operation depends largely on good will: there is no special requirement on any regional station to show fillers but they all do. Rates are low by commercial standards but there is a dedication on the part of actors and production teams which at best, maintains a highly professional standard.

They seem to regard the work as a set of social conscience and a request to take part in a film as hardly ever refused. The roll-call is impressive: Penelope Seales, Doreen Landon, Hannah Gordon, Roy Hudd, Joss Ackland, Patrick Mower, Paul McCartney, Willie Rushton, Alan Bennett, Derek Nimmo, Richard Briers, Ernie Wise... Glenda Jackson was one of the few who did actually refuse a part.

No, it wasn't the title which put her off, though *Glenda and Ernie Give Blood* doesn't exactly trip off the tongue. It was simply that the very idea of being a blood donor terrified her. "Wonderful" said the COI, "you're exactly the person we need to convince all the people who feel the same way" and they made renewed efforts to persuade her into a role they then tailored to reflect her apprehensions. She worked on the film with Robert Young, who like many of the outside producers has an impressive list of credits behind him, including episodes of *Minder* and *Bergerac* and the John Cleese *Sony* advert as well as numerous public information fillers and commercials.

Personally, I don't think there is anything quite as original as *Bedtime Routine* though there is plenty of good work, some of a standard high enough to be adopted by television programmes themselves. BBC Breakfast Time used the excellent tyre safety filler, a drama of a near fatal accident, to lead into a feature on the subject and *Out of Court* used the smart little credit card crime film. There is increasing use of animation, the best example is a pressive: Penelope Seales, Doreen Landon, Hannah Gordon, Roy Hudd, Joss Ackland, Patrick Mower, Paul McCartney, Willie Rushton, Alan Bennett, Derek Nimmo, Richard Briers, Ernie Wise... Glenda Jackson was one of the few who did actually refuse a part.

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JACKANORY
BBC1, Monday-Friday, 4.25pm.
FLICKS
ITV, Wednesday, 4.00pm.
THE BOOK TOWER
ITV, Thursday, 4.45pm.

Books, as Anthony Powell has it, do furnish a room. What's more important, as we all know, they also furnish a mind. But confronted by television, space invaders, video, home computers and pop, it's little short of a miracle that any child - and indeed the whole of society - reads at all, that literature and literacy haven't gone the way of such "Victorian" pastimes as family music-making and taxidermy.

Such at any rate is the commonly held belief; the screen, the Moloch of our time, is stopping people reading and destroying the book market as effectively as it put paid to the cinema in the Fifties. Wrong... or wrongish anyway, publishers - and, more than anyone, they should know about such things - will tell you that people now read because of television, that seeing something on the screen leads them to rush out and buy the book of the film or series. They are probably right. Certainly the current bestseller lists four hardbacks and no less than five paperback titles are associated in some way or another with recent television or radio programmes.

They are books like R F Delderfield's *Diana*, Paul Scott's *The Jewel in the Crown* and of course Colleen McCullough's *The Thorn Birds* which have been given whole series to themselves. Were there a television series like Radio 4's *Bookshelf*, however, a whole range of other books would also get a look in, a mention and a useful sales boost. But although there used to be *The Book Programme* and *Read All About It* (both BBC) and some interesting innovations on Channel 4, at the moment books as books get short shrift on the small screen - except on children's television.

There the picture is rather different. There are currently no less than three

Of course, we all know about routine fire precautions, but how many of us actually do them routinely? Well, after seeing *Bedtime Routine* a quite exceptional little public information film made for television - I do. This slick, catchy, song and dance piece turns dull chores into something quite memorable. I don't actually do the full satin-gown procedure number each night; in the early hours the most I can muster is the odd skip as I hum the song while deftly whisking plugs from the wall, and shutting doors in every room with balletic grace.

It is more remarkable that *Bedtime Routine* was not a new departure in public information films, but was produced as one of the large library of what are known as "television fillers". These are short films with an uncontroversial social welfare message, made available to all television stations for play during a short gap between commercials or, in the case of the BBC, between programmes. All television fillers originate with and are paid for by government departments, principally the Home Office, DHSS, DES, Department of Transport, Health and Safety Executive, and DoE.

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MEDIA



Jan Francis tells the story of Peter Pan in Jackanory

TV on books

David Housden on children's book programmes

separate series wholly devoted to them or their contents. *Jackanory* reads them, *Flicks* illustrates them and *The Book Tower* talks about them. The common aim is simply to interest children in books. There is certainly no suggestion that they must rush out and buy them - although as booksellers and school librarians will testify, the briefest mention on any of the programmes is sufficient to spark a flood of inquiries.

Jackanory (BBC1) was the first in the field and presents high-quality readings of abridged stories. Such is its prestige and following - among both children and a substantial body of

adults - it can attract actors of the calibre of Jane Asher and Kenneth Williams (a particular favourite) to read. The presentation is simple (although the sets seem to be getting more and more elaborate: the National Theatre could have played Chekhov on a recent country house terrace) but it is undoubtedly effective, using drawings to break up the monotony of 15 minutes of "talking head". And the emphasis is squarely on the story - just as it should be.

Somewhat similar is Thames Television's *Flicks*. Aimed at a rather younger audience, the story is usually a

Humble fillers

Francesca Greenoak on a new style of public information film

fillers. As in-house writer/producer she was responsible for writing a script, setting everything up with an outside film company, and co-producing. In a flash of brilliance she wrote lyrics and an action-script, called in Piers Haggard and Tudor Davies from the *Pennines from Heaven* team and the end result was a production with enormous style and fun. Yet it made all the required points seriously enough for the Home Office to approve and to satisfy the ITCA (Independent Television Companies Association) which measures all television fillers against strict regulations.

Unlike the government's paid airtime campaigns: *Think Bike*, the *Drink/Drive* series and YTS films, for example, television fillers are low-budget productions. The success of the operation depends largely on good will: there is no special requirement on any regional station to show fillers but they all do. Rates are low by commercial standards but there is a dedication on the part of actors and production teams which at best, maintains a highly professional standard.

They seem to regard the work as a set of social conscience and a request to take part in a film as hardly ever refused. The roll-call is impressive: Penelope Seales, Doreen Landon, Hannah Gordon, Roy Hudd, Joss Ackland, Patrick Mower, Paul McCartney, Willie Rushton, Alan Bennett, Derek Nimmo, Richard Briers, Ernie Wise... Glenda Jackson was one of the few who did actually refuse a part.

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cartoon, but a cartoon based on a book. Christopher Lillicrap, whose engaging personality is the programme's greatest asset, links it all together, holding and reading the book, his image superimposed over the dustjackets of others, singing a song and banging home the message, contained in the show's theme-song that it's fun to "Flick through the pages of a book". No one would want to quarrel with that.

Much more elaborate and - incredibly - at the time of writing television's only real book programme, is Yorkshire Television's *The Book Tower*. The set-up is odd, to say the least. The tower itself is a sort of Gothic dustbin perched on the roof of what looks like a comfortable seventeenth-century manor house. Books do furnish it, but there are also comfortable chairs and a library through which the presenter strolls, linking together extracts from several books in each 30-minute programme. They can be anything. A reading from *Beowulf* and a dramatization of part of a modern Dutch children's novel were featured in one recent programme. There are also children choosing their favourite books and competitions too. Most useful of all, the titles, authors and publishers of all the books mentioned are listed at the end of the programme, and were circulated in advance to schools and libraries. It's all very laid-back and - dare one say it? - civilized, but - one hastens to add - without being in the least bit "arty" or highbrow-elitist.

Alan Armstrong, this season's presenter, is a born storyteller, the sort of man every child would like to have as a father. He makes all the funny noises, does the voices and handles books all the time, communicating an almost sensual pleasure as he does so. He likes books, it's as simple as that (or if he doesn't he's a even better actor than the critics have realized), and it's his simple, unaffected enthusiasm for them which makes *The Book Tower* so enjoyable and so pleasingly unpretentious. Producers of adult arts programmes might care to take a look.

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briefings

radio & tv

For schools

YOU AND ME

(Monday, Wednesday, 10.00, Tuesday, Thursday, 14.00 BBC2) A week of programmes for four and five-year-olds about ethnic minority groups. "Take My Hand" features the Chinese, Greek Cypriot, West Indian and Indian communities.

GEOGRAPHY CASEBOOK: BRITAIN (Tuesday, 10.35 VHF4) Examples drawn from the south coast of England between Weymouth and the Solent provide 13 to 16-year-olds with illustrations of coastal erosion and deposition.

MIDDLE ENGLISH (Wednesday, 9.30, Friday, 11.05 ITV) Dave Arthur presents a new programme on official war reporting, tracing its history from the Zulu wars to the Falklands.

MATHS COUNTS (Wednesday, 10.15 BBC2) "What price to pay?" investigates

ilea Inner London Education Authority

HEADSHIP

Applications are invited from suitably qualified and experienced teachers for the following posts:-

SEBRIGHT (I) SCHOOL
Audrey Street, E2 8QL
Roll 103 plus 14 1/2 and 22 p.t. nursery. Vacant now. Burnham group 3 plus Inner London allowance.

SEBRIGHT (JM) SCHOOL
Dove Row, E2 8QL
Roll 125. Vacant now. Burnham group 3 plus Inner London allowance.

WOODHILL (JM & I) SCHOOL
Woodhill (Hillreach), SE18 5JE
Roll 324 plus 60 p.t. nursery. Vacant now. Burnham group 5 plus Inner London allowance.

Please send photocopy of application form and further details to Education Officer, EQ/T810, County Hall, London SE1 7PB. Closing date for the return of completed forms 8th April.

ST MONICA'S RC (JM & I) SCHOOL
Hoxton Square (Old Street) N1 6NT
Roll 212 plus 20 1/2 and 23 p.t. nursery.
Applications are invited from suitably qualified and experienced Catholic teachers holding the Catholic Teachers' Religious Certificate. Vacant now. Burnham group 4 plus Inner London allowance.

Application forms and further details are available from the Chairman of Governors, Rev F. Dunn, St Monica's Priory, 19 Hoxton Square N1 6NT. Tel: (01) 59 5006, to whom completed forms should be returned by 8th April.

ILEA is an equal opportunities employer. (8487)

London Borough of **ENFIELD** EDUCATION DEPARTMENT

ST. GEORGE'S R.C. PRIMARY SCHOOL, Gordon Road, Enfield, Middx. Tel. No. 01-363 3729.

HEAD TEACHER

Group 6. Roll 334

The Governors invite applications from suitably qualified and experienced teachers for the post of HEAD TEACHER, to commence in the Autumn term 1984.

London Allowance, £845. Consideration given to assistance with removal, relocation costs, temporary housing and two homes allowance.

Application forms (large SAE) and further particulars obtainable from the Director of Education, P.O. Box 88, Civic Centre, Silver Street, Enfield EN1 3XQ, to be returned to Chairman of Governors, St. George's R.C. Primary School, The Presbytery, London Road, Enfield, Middx. Closing date 6th April 1984. (8812)

HEADSHIP

From September 1984

Maldenham Junior School
Newark Road, Luton, Beds LU4 8LD

Group 6
Estimated number on roll September 1984 - 470 children aged 7-11 years.

Applications are invited from suitably qualified and experienced teachers for the Headship of this Group 6 Junior School.

Application form and further details are available from the Chief Education Officer, County Hall, Bedford MK42 9AP. Closing Date: 6th April 1984. (8447)

Bedfordshire

PRIMARY HEADSHIPS continued

HILLINGDON
LONDON BOROUGH OF HILLINGDON

HAYES PARK JUNIOR SCHOOL
Raymond Drive, Hayes, Middlesex UB8 3SS.
Required for September 1984 a Head Teacher for this Group 3 School.

Application forms from the Director of Education, Civic Centre, Uxbridge, Middlesex UB8 3PH (0494 50451) to whom they should be returned as soon as possible and not later than 6 April 1984.

Outer London Allowance Payable: (£8104) 110010

KIRKLEES
METROPOLITAN COUNCIL EDUCATION SERVICES
HAWKINS ROAD, CE (C) J & I SCHOOL
Langhams, Batley, West Yorkshire WF10 4AA.
Applications are invited from suitably qualified teachers for the post of HEAD OF GROUP 3 school which caters for the age range 5-11 years. The appointment will be made from September 1984. Application forms (s.a.e.) should be sent to the Director of Educational Services (Ref: 445) to whom completed forms must be returned with the advertisement.

ST PAULINUS R.C. (A) JUNIOR SCHOOL
Temple Road, Dewsbury, West Yorkshire WF10 4AA.
Applications are invited from suitably qualified teachers with primary school experience for the post of HEAD OF GROUP 3 school which caters for the age range 5-11 years. The appointment will be made from September 1984. The successful candidate will be expected to accept the C.E.C. Model Contract. Forms and further details are available from the Director of Educational Services (Ref: 445) to whom completed forms must be returned with the advertisement. (110010)

BARNET
(LONDON BOROUGH)
1984: GRASS ROYAL COUNTRY JUNIOR SCHOOL, Grassington Avenue, Barnet, Herts. SN4 6JH.
Roll 22.
DEPUTY HEAD TEACHER - Group 3.
Applications are invited from suitably qualified teachers for the post of Deputy Head Teacher for this Group 3 school. The successful candidate will be expected to accept the C.E.C. Model Contract. Forms and further details are available from the Director of Educational Services (Ref: 445) to whom completed forms must be returned with the advertisement. (110010)

LONDON BOROUGH OF CROYDON

EDUCATION COMMITTEE

Invite applications for the Headship of Winterbourne Junior Girls School from well qualified teachers able to run the school in accordance with the best education practice.

Salary: Head Teacher Group 5 plus London Allowance
Tenable: 1st September 1984

Reasonable removal expenses will be reimbursed (details on request)

Application form and further details from the Director of Education, Education Department (TAS), Taberner House, Park Lane, Croydon, CR9 1TP (Telephone 01-886 4433 exin. 2809) to whom completed forms should be returned by 13th April 1984. (8871)

Headships

Applications are invited from suitably qualified and experienced teachers for the Headships of the following schools:

Woodhall County Primary School, Sudbury
Group 5: Ages 5-9. Number on Roll 161.
The school is situated in a well appointed, semi-open plan building, serving a mixed residential area in the market town of Sudbury in the Stour Valley.
The post becomes vacant from the beginning of the Autumn Term 1984.

Hardwick County Primary School, Bury St Edmunds
Group 5: Ages 5-9. Number on Roll 235.
The school is a modern primary school situated on the south-eastern side of the historic town of Bury St Edmunds, serving a modern mixed residential area.
The post becomes vacant from the beginning of the Autumn Term 1984.

Further details and application forms are available from the County Education Officer, Glynwade Street, Ipswich IP41 1J (SAE please) and completed forms should be returned by 6th April 1984.

Suffolk County Council

WARWICKSHIRE

Appointment of Head
HARBOROUGH MAGNA C.E. FIRST SCHOOL
Harborough Magna, Rugby CV33 0HS

Applications are invited from suitably qualified and experienced teachers for the post of Head of this Group 1 school. The successful candidate will be expected to accept the C.E.C. Model Contract. Forms and further details are available from the County Education Officer, 22 North Street, Warwick CV34 4SR. (Ref: PA/T7) to whom completed forms should be returned by 30th March 1984. (64586) 110010

WIRRAL
METROPOLITAN BOROUGH OF WIRRAL
WIRRAL PRIMARY SCHOOL
Penny Road, Thinehall, Wirral, Merseyside L31 7UG.
REQUIRED FOR 1st Deputy Head Teacher Group 4.
Application forms and further details are available from the Director of Education, Municipal Building, Cleveland Street, Birkenhead, Merseyside L4 3BN. Application forms should be returned by 30th April 1984. (64565) 110010

SOMERSET

Applications are invited from suitably qualified and experienced teachers for the following primary headships. Duties to commence January 1985.

I: GRASS ROYAL COUNTRY JUNIOR
Group 6
C.E. EVERCRECH C.E. PRIMARY near Shepton Mallet, Group 4

III: NORTH CURRY V.C. PRIMARY
North Curry, Nr. Taunton Group 3

Application forms and details (SAE) from the Staff Education Officer, Education Department, RA1 4BY. Closing date 1st April 1984. (65363) 110010

CALDERDALE METROPOLITAN BOROUGH COUNCIL

EDUCATION DEPARTMENT

ST PATRICK'S (A) J & I SCHOOL
Green Lane, West Vale, Greenland, Halifax

A DEPUTY HEAD TEACHER is required for this Group 3 school, to teach Lower Juniors.

A dedicated Catholic is required. Interest in curriculum development.

Application forms and further details obtainable on receipt of form (s.a.e.) from Rev. Fr. K. Meade to whom completed forms should be returned by 6 April 1984. St. Patrick's Presbytery, Victoria Road, Elland, W. 110010. (58947)

Education

Head Teacher

Ollerton Junior School, Whinney Lane, New Ollerton, Newark, Notts.

Qualified teachers are invited to apply for appointment as Head Teacher of the above school. The vacancy is created by the retirement of the Head Teacher.

Number on roll: 314 Salary Group: 5

Vacant: Summer Term 1985

Application forms and further details may be obtained by forwarding a stamped addressed foolscap envelope to the Director of Education at County Hall.

Closing Date: 6th April 1984. (10888)

Nottinghamshire County Council
County Hall, West Bridgford Nottingham NG2 7DP

Hounslow

CRANFORD JUNIOR SCHOOL (GROUP 6)
Berkley Avenue, Cranford, Middlesex TW4 6LS.
Tel: 01-759 1230

HEADTEACHER

Applications are invited from suitably qualified and experienced teachers for the above post, which becomes vacant in September 1984 due to the retirement of the present Headteacher.

Application forms and further details are obtainable from:

The Director of Education, (Ref: PA/EBA), to whom they should be returned by Friday, 6 April 1984.

Please enclose s.a.e. (foolscap).

London Allowance: £846 p.a.

We are an Equal Opportunity Employer.

Deputy Headships
Second Masters/
Mistresses

AVON COUNTY COUNCIL
COUNTY OF AVON
EASTON C.E. SCHOOL
Easton, Bristol BS5 0SQ.
Required from September 1984 for the post of Deputy Head of this Group 3 school, to teach multi-cultural class with nursery class and special unit.

Applications are invited from suitably qualified and experienced teachers for the post of Deputy Head of this Group 3 school, to teach multi-cultural class with nursery class and special unit.

Qualities sought are: effectiveness as a class teacher, initiative and enthusiasm, warmth and humour, capability to establish good personal relationships with children, colleagues, parents and community.

Headmaster and Church are part of a working couple and the successful applicant will need to demonstrate their sympathy with this ideal.

Application forms and further details are available from the Director of Education, Municipal Building, Cleveland Street, Birkenhead, Merseyside L4 3BN. Application forms should be returned by 30th April 1984. (64565) 110010

When the mould breaks

A plain guide to graded tests by Bob Doe

Two years ago almost simultaneous announcements in London and Oxford proposed graded tests in science - among other subjects - as part of two new schemes for broadening the ways pupils are assessed. Both announcements bore the hallmarks of administrative and political initiatives rather than grassroots educational moves, but both implied a fundamental and radical shift in the way pupils are taught, assessed and reported on.

Progress in translating some of these proposals into practical propositions has been slow, though in the case of mathematics, it received a boost recently from a £150,000 grant from the Nuffield Foundation. It has not been decided yet, for instance, whether there will just be graded tests in "science" or the separate science subjects. Inevitably, such a pace of development means that little has yet emerged to reassure those science teachers who fear graded tests will create an onerous burden for them and their pupils and limit their freedom to decide what to teach and how to teach it.

The development of these new tests - or graded assessments as they are now being more generally termed - was proposed by the London GCE board, working jointly with the ILEA, and as part of a separate Oxford Certificate of Educational Achievement (OCEA) being devised by various local authorities, the Oxford Department of Educational Studies, and the Oxford GCE board.

In both cases the tests are only part of wider moves to introduce much more diverse assessments of what school-leavers have experienced and achieved than can be expressed through GCE and CSE results. These are expected to include some sort of pupil profile as well as the graded tests planned in English, maths, science, modern languages and, in London, craft design and technology.

The idea is that instead of testing school-leavers only at 16, various levels of achievement in each subject are defined, and recognized by assessments taken by pupils at various ages and levels, as and when they feel ready to take them. How many levels there will be in science is just another of the things that has yet to be decided.

Most experience with graded tests so far has been in modern languages, where they were pioneered as much as means of revising the curriculum as a new assessment procedure. In languages, four levels are generally thought to equate with the 11 to 16 curriculum. In Oxford, they have decided that four levels is a reasonable number for all subjects, though higher levels might eventually be offered in science. In London, it is thought that mathematics may require somewhere between 10 and 20 levels up to the age of 16. The London Graded Assessments in Science Project (GASP) has not decided how many there will be in science, though some involved in it favour 10 levels.

The advantages claimed for graded assessments include increased motivation by offering pupils shorter-term, attainable goals. Even if the 16-plus course is not completed, it is argued, they offer some evidence of what has been achieved in a subject. Also, courses based on graded assessments are expected to be devised "from the bottom upwards" as recommended by the Cockcroft Report.

At present, it is felt, pupils are too often expected to undertake what

amounts to a watered down O level course, regardless of their ability. Learning more about less, and learning it more thoroughly and more practically, would be more useful and give a greater sense of achievement and self-confidence, it is argued.

Graded assessments are expected to give greater attention to what pupils can do rather than what they can't, or how well they do it in relation to others. It is reckoned that under the existing system, anyone getting a grade C in O level physics probably could not answer half the paper correctly.

The new assessments are expected to be mastery tests; that is, in order to pass each level, candidates will be expected to get a very high proportion of the test right to show they have mastered the work at that level. They are, in the jargon, to be criterion referenced rather than norm referenced. But specifying exactly what it is that candidates can do at a certain level is very much more complicated than the present system in which examiners loosely indicate the general area to be covered in the syllabus and set an exam to sample what has been learnt to put

the candidates in order of success. Nevertheless, both the Oxford and London groups hope to be able to offer schools the lower level assessments in science by 1985.

Sir Keith Joseph, the Education Secretary, has made it clear he wants the 16-plus to go in a similar direction with more criterion referencing. But he seems to regard graded assessments as suitable only for the less able. That view is vigorously contested by some of those who are devising them and who see them as suitable for the whole 11 to 16 ability range. Professor Paul Black, of the Chelsea College Centre for Science Education, told the conference of the Association for Science Education in Exeter earlier this year that graded assessments were "an enormous and revolutionary change" that would "break the mould" of the examining constraints on science teaching.

But if they were restricted to the less able (as there is some evidence they have been in modern languages) they could end up with less esteem than the CSE. He doubted whether it was to sample what has been learnt to put

EXTRA

SCIENCE

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The new assessments are expected to be mastery tests; that is, in order to pass each level, candidates will be expected to get a very high proportion of the test right to show they have mastered the work at that level. They are, in the jargon, to be criterion referenced rather than norm referenced. But specifying exactly what it is that candidates can do at a certain level is very much more complicated than the present system in which examiners loosely indicate the general area to be covered in the syllabus and set an exam to sample what has been learnt to put

the candidates in order of success. Nevertheless, both the Oxford and London groups hope to be able to offer schools the lower level assessments in science by 1985.

Sir Keith Joseph, the Education Secretary, has made it clear he wants the 16-plus to go in a similar direction with more criterion referencing. But he seems to regard graded assessments as suitable only for the less able. That view is vigorously contested by some of those who are devising them and who see them as suitable for the whole 11 to 16 ability range. Professor Paul Black, of the Chelsea College Centre for Science Education, told the conference of the Association for Science Education in Exeter earlier this year that graded assessments were "an enormous and revolutionary change" that would "break the mould" of the examining constraints on science teaching.

But if they were restricted to the less able (as there is some evidence they have been in modern languages) they could end up with less esteem than the CSE. He doubted whether it was to sample what has been learnt to put

continued

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EXTRA

When the mould breaks

continued

“visible for schools to offer the graded assessments approach to some pupils and the existing 16-plus approach to others.”

Mr John Bausor, the ILEA science inspector, claimed graded assessments would make it easier for science teachers to use project work and exploratory investigations, and to relate what they taught to the real world. But are science teachers ready to have the “mould broken”? Won’t multiple testing and mastery learning impose considerable extra strain on both teachers and pupils? And if assessments are to specify exactly what it is pupils can do, does that not imply that those designing the assessment are deciding what pupils should learn, rather than those doing the teaching?

At the ASE in Exeter it was clear that some teachers’ enthusiasm for graded assessments are tempered by doubts such as these. GASP is still in the early stages of its deliberations but John Bausor says: “We must not design assessments that will restrict or limit the development of the curriculum.” Teachers must have freedom to approach science in different ways.

Inevitably, however, graded assessments are likely to mean more assessments, and much of the burden for this is likely to fall on the teacher, particularly in the lower levels where the examination boards may simply take steps to calibrate teacher assessments. As pupils move up the levels towards those that it is hoped will win enough approval to provide them with the qualifications they need for employment or further education, the boards are likely to play a greater part. But even here, teachers may be required to assess practical or project work, and possibly even to select some of the questions to ask pupils.

In order to leave the choice of what to teach in teachers’ hands the London

group is considering whether it can build up banks of suitable assessments in different areas of science. Teachers could then nominate those areas that were most appropriate for their pupils. At the lower levels (one and two), Oxford has decided only to offer a general science rather than separate subjects and GASP is likely to follow suit. At the upper levels (levels three and four in Oxford) separate chemistry, biology and physics tests may be available.

In GASP they are looking at three aspects of science:

● Content; the facts and concepts of science;

● Processes; such things as the use of symbols and apparatus;

● Investigations; the experimental, and research role of the scientist. It is thought possible that in London the knowledge associated with chemistry, biology and physics could be assessed separately from the general processes and techniques of science.

The move towards mastery learning may mean many teachers will have to change teaching methods. It strongly implies that a move towards more individualized learning will be necessary to enable all pupils to learn completely the very high proportion of the syllabus they will have to master to be successful at each level, although it is recognized that there may have to be much less in such syllabuses than at present.

John Bausor says: “Graded assessments will show up what many teachers are probably already aware of now – how very different different pupils are in different areas.”

Much has still to be decided about the final form of graded assessments, but they increasingly look as much like a new approach to the curriculum as a revision in assessment. As John Bausor says, the two are inextricably linked, so it is hard to see how so radical a change in examining can avoid an equally radical effect on the way science teachers work.

by exam boards from past papers. However, the great virtue of this book is the answers. Reasons are given for the choice or rejection of each answer, the correct answer being given at the end so that students will read through the clearly explained argument rather than just tick or cross their answers. The new edition introduces 50 or so new questions, reflecting changes in approach by exam boards. Assertion-reason questions, the bane of many students’ lives, are now omitted. All topics such as d-block, enthalpy changes etc., each containing upwards of 30 questions giving a wide range of types generously made available

Chris Mason

Physics initiatives

by Brian Davies

In January, during the Exeter Conference of the Association for Science Education, the education department of the Institute of Physics and Physics Education launched its “Schools Affiliation Scheme” as the latest of its many initiatives over the years to help physics teachers in schools.

The institute’s commitment to education is not only written into its royal charter but is evident from the many and varied activities and publications instigated, under the aegis of the institute, by three interdependent and collaborating groups.

The careers and education committee determines the institute’s educational policy, and responds quickly and effectively to proposals from government, or other educational agencies who value the expertise of the only professional institution serving the interests of all physicists and who look to the institute for advice concerning major educational reforms in physics education.

The education group consists entirely of fellows, members and associate members of the institute, who have chosen physics education as a major professional concern. The majority of this group are physics teachers and lecturers in physics education. Their elected committee is the second of the three groups mentioned.

The third, much smaller, group is the education department of the institute at Belgrave Square, London, where a hard-worked secretary copes with four staff, two men and two women, all with experience of “chalk face” teaching, but sharing qualifications in physics, history and philosophy of science, and aeronautical engineering.

For many years the work of the three groups has involved, for example, the production of booklets, posters, leaflets and articles concerned with physics-based careers, giving lectures on physics topics themselves, to organizing conferences with themes on physics education. They establish and moderate assessment of technician courses, organize examinations such as the TEC (or, earlier, the HNC and HND in applied physics) and the graduate level “Grad Inst P” courses, and compile educational statistics and salary surveys. Other functions range from servicing and representation on numerous committees, to liaison work with such bodies as the European Physical Society, the ASE, the Royal Society of Chemistry, and the Department of Education and Science, to running exhibitions demonstrating the applications of school-level physics in industry, and – this is some “and” – answering from day-to-day the scores of questions sent in by teachers, pupils and the general public on every imaginable topic from patents in perpetual motion machines to careers as cosmic mechanics.

More recently, with the help of funds provided by sponsors of a “Physics Development Trust Fund”, the education department has been able greatly to increase its efforts to help teachers in the secondary schools. The

main thrust has been to create awareness of industrial applications of school-level physics, and of the opportunities for interesting careers for people with qualifications in physics. The department recently collaborated with the Royal Society of Chemistry and the Institute of Biologists to produce a folder and wall chart called “Career Options – A Guide for Science and Careers Teachers” which is proving very popular.

The live issues of the four-monthly SNIPPETS magazine – “SNIPPETS” stands for Serendipitous Notes in Physics, Physics Education and Technological Science – have been distributed free through local education authorities to 7,000 secondary schools, and another 2,500 copies to science educators at home and abroad. Just over half of the articles relate to industry, the rest range over the unexpected, the everyday, the amusing and the unnoticed ways in which physics affect our lives. Several foreign correspondents have written to ask permission to translate the magazine, and articles from abroad regularly feature in the “readers write” columns.



Schoolchildren enjoy a demonstration of a special rig used by British for testing safety harnesses at a Physics at Work exhibition sponsored by the Institute of Physics.

Colourful posters, dealing with careers with physics are being produced regularly, as part of an integrated approach to schools materials, with the idea of informing pupils and teachers of the ways in which physics is used within a career option, as well as spelling out the opportunities for a career with physics in less obvious areas such as agriculture, medicine, environmental control, and industrial research associations. One set of posters is deliberately light-hearted in approach, to emphasize that physics is not only fascinating, but can be fun.

The number of three-day “Physics at Work” exhibitions is increasing, and more industrialists are showing a keen concern to explain how physics is vital to their commercial success. More than 10 exhibitions have been arranged for 1984, and the demand from teachers for such exhibitions is growing all the time. After the publica-

tion of *Girls and Physics*, jointly impression, the education department has been running a series of “Girls and Physics” lectures and workshops throughout Britain, and is heavily involved in preparations for Women in Science and Engineering year.

In April, the first videotape in a series called “Six of the Best” is being produced. The idea is to videotape some of the finest lecturers as they give their talks to schoolchildren, and then edit-in close-ups of demonstrations, so that teachers in areas which are unlikely to stage such high quality presentations may borrow videotapes for their pupils’ benefit.

And it was pupils as much as teachers, whom we had in mind in devising the “Schools Affiliation Scheme”. The institute, with its perfectly proper concern for high professional standards, requires an honours degree equivalent plus some years of physics-related experience before a person may be considered for membership. (The fact that a full membership of the institute has to be earned is not, we think, fully appreciated by headmasters when they are considering competing claims for promotion among members of their staff.) It was to set up a partnership between physics teachers and the institute which was independent of stringent academic requirements that we offer, for £20 a produced by the institute and the Royal Society, and now in its fifth

At this stage the programme was extended to include a further 100 second-line pilot schools. To assist with the implementation of the guidelines in these schools, three teachers were seconded as Munn Dunning development officers. Their remit allowed them considerable freedom of approach, and involved frequent visits to the pilot schools. These appointments were an unqualified success, and made a major contribution to the development of the course.

Equally successful was the secondment of a field development officer by the SEB, to prepare and oversee the trial examinations and to assist schools with the associated assessment procedures.

year, an affiliation package which includes six issues of *Physics Education*, or *Physics in Technology*, several copies of each issue of SNIPPETS, free posters, careers booklets, wall charts, and concession price reprints of articles from the journals mentioned above.

Affiliated schools may apply for grants of up to £1,000 to help innovations in teaching, under our “small grants scheme”, and we hope that since we now have a means of communicating with physics departments at least nine times a year (three SNIPPETS plus six journal issues) our contacts with schools and their pupils should become even more effective, and we aim to become more responsive to the needs of physics teachers and their pupils. Physics teachers will, after all, professional physicists doing a most vital job. We intend to help them in whatever ways we can.

Chemical arithmetic

Chemistry Calculations for O level and beyond. By J.H. Allen. Harrap £1.55. 0 245 54060 1. Chemical Formulae and Equations Second Edition. By C.V. Platts. Longman £1.35. 0 582 33162 5.

These two books offer different approaches to some of the chemical problems involved in O level/CSE courses.

The aim in *Chemistry Calculations* is to overcome one of the chief difficulties experienced by students – chemical arithmetic. This material is suitable for all 16+ exams. There are six sections: moles, formulae, reacting masses, concentration and volumetric analysis, gas laws, and molar volume, with an additional section of miscel-

aneous questions which contain a combination of previous calculations – often integrated within one question. Each section gives some theory and a worked example, followed by a graded series of exercises, many being quite involved structured questions of the type asked by exam boards. In the section on moles, for example, there are six types of questions, which contain as many as eight calculations. Answers to all calculations are given.

One may perhaps quibble with certain features such as the layout, and the tendency to use a unitary method, and the consequent avoidance of mathematical formulae. No mention is made of practical exercises so that examples seem a little academic, and there is a careless use of “weight” rather than “mass”.

This book is excellent for students who find this topic difficult, and although it does seem quite expensive for the amount of the O level syllabus that it covers, it would certainly clarify procedures and give invaluable practice to students.

Chris Mason

EXTRA

Taking on the pilot

A new science course in Scotland

by Hugh MacLaren

Major developments are taking place in the curriculum being made available to Scottish pupils in the 14-16 age group. An aspect of this development is a new science course to be offered by the Scottish Examination Board in addition to courses in the separate science disciplines of biology, chemistry and physics. The purpose of this article is to indicate the main features of the new course.

The Munn Dunning reports were published simultaneously in 1977. Among their suggestions was to propose “Science for all” to the end of compulsory schooling, and for all subjects to institute overlapping syllabuses and awards for three levels of achievement: Foundation, General and Credit. These far reaching proposals led to the setting up of a feasibility study, its purpose was to form syllabuses suitable for the least able group of pupils in English, mathematics and science. The Science Feasibility Study was coordinated by a team of three HMs, and involved some 32 pilot schools from various parts of Scotland. Guidelines for syllabus and assessment were to be based on good practice, and on a variety of teaching methods.

Science teachers, from the pilot schools, science advisers, college of education lecturers and others were brought together for a series of meetings to prepare syllabuses, identify teaching strategies, and devise assessment techniques. Interim guidelines were published in 1981.

At this stage the programme was extended to include a further 100 second-line pilot schools. To assist with the implementation of the guidelines in these schools, three teachers were seconded as Munn Dunning development officers. Their remit allowed them considerable freedom of approach, and involved frequent visits to the pilot schools. These appointments were an unqualified success, and made a major contribution to the development of the course.

Equally successful was the secondment of a field development officer by the SEB, to prepare and oversee the trial examinations and to assist schools with the associated assessment procedures.

In session 1982-83, the regions extended the preparations for the new courses to most of the remaining schools in Scotland, and further secondments were made at regional level. The guidelines were refined in the light of experience gained in the pilot schools, and from the results of the trial external assessments. The development of these guidelines was heavily dependent on the work and commitment of the teachers in the pilot schools, throughout the four years of the feasibility study.

In the development programme, science is to be offered at G and F levels. A joint working party composed of representatives of the SEB and the CCC (Consultative Committee on the Curriculum), was given the remit of writing a syllabus and assessment procedures for both levels. Experience drawn from the feasibility study was the basis for the new science syllabus produced by the joint working party. This new syllabus is to be introduced in 1984 with first certification in 1986, and is called standard grade science. Standard grade biology, chemistry and physics are to be introduced at C and G levels in 1986 with certification in 1988. Standard grade science at C level will probably be introduced once the G and F levels have been established, though no timescale has yet been set.

Although the feasibility study was directed specifically at the less able group of 14 to 16-year-old pupils, the teaching methods, techniques, and some of the philosophy of the foundation work appears to be having some influence on teaching approaches across the full 14-16 age range, and indeed the work of earlier and later year stages. In addition to the 14-16 development programme, a major reorganization of courses in the non-

advanced sector of further education and in secondary schools is envisaged in the “Action Plan 16-18”, published last year. In this plan, modules of work are being prepared to link with the topics of the standard science course.

The standard science course

In the feasibility study certain principles emerged for a course for the less able. Targets should be within pupils’ capabilities. Pupils’ attainment, however limited, should be recognized and encouraged given wherever possible. Assessment should be built into class activities as part and parcel of the learning process. Content should be selected on the basis of its importance and interest to the pupils. Adequate time should be given to the development of skills. Emphasis should be placed on the effective use of language in the learning process.

Four major fields of study are identified for inclusion in the new course – healthy and safe living; living things and their environment; materials; energy and its uses.

A suitable topic from each of these fields is selected, to form the core, or compulsory part of the course required for external assessment: healthy bodies, a study of environments, the introduction to materials and energy. The core occupies roughly half of the teaching time, the remainder being devoted to optional topics selected by the school and approved through external moderation. Suggested optional topics include safety, plant science, plastics, communications.

A format has been agreed for the presentation of the content and assessments for topics. It includes an introduction, content outline, specific objectives and suggested activities

which are in turn linked to the main objectives of the course. These objectives are integral to the structure of the course, the assessment system, and the profile of performance. They are arranged in sets under the headings: (a) knowledge and understanding, (b) handling information (c) practical skills, (d) problem solving and (e) attitudes: the first three of these sets are included in “problem solving” where all the abilities are brought together in one overall scientific activity.

“Attitudes” are not included in national certification though they may be assessed by individual schools. For each of the sets of course objectives, grade-related criteria are given and will be used in the assessment of a pupil’s performance.

Much of the work in the feasibility study was concerned with testing out a variety of teaching and learning methods; for example, allowing pupils to produce draft reports for discussion with other pupils or the teacher before preparing a final version to be placed in a folio of evidence of attainment. Open-book exercises, end-of-topic tests, diagnostic tests, practical investigations, and extended writing exercises were all tried and found to have a place in the course work. Initially, efforts were made to produce criteria for each type of assessment instrument.

This led, however, to considerable difficulties in the amalgamation of results. Assessment is now made using the grade-related criteria based on the course objectives and it does not matter which particular test instrument is used, provided the particular criterion is clearly identified. Thus, the attainment of some of the GRC for handling information may be demonstrated in an end-of-topic test, an

open-book exercise, a practical investigation, and so on. In the description of a topic the points at which such assessments may be made, are identified and are discussed at the moderation stage.

A number of research projects in science have been operating in support of the Munn Dunning development programme. One such project is investigating the testing of practical skills in science, and has produced some 300 items which teachers may choose to use in their assessments. These test items have been extensively tested at F level. Work is proceeding towards the development of test items for G level.

Another project involves the collection of test items, some from pilot schools, for diagnostic or summative testing, and test items are now becoming available to schools. Setting up a collection of items as the course developed proved difficult as specific objectives were added, deleted or amended, and the writers of the items and those who classified them had to have considerable patience and endurance.

The development of the new science course has required much effort and commitment from a large number of teachers, particularly those in the first line schools. Coping with the changing demands as the course evolved has called for patience and understanding. The basis of the course has been shaped and tried by teachers in a professional way, and there is every confidence that it will provide pupils with satisfaction, interest and enjoyment in science.

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Hugh MacLaren is a member of HM Inspectorate in Scotland.

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Science with a human face?

Andrew Firman on the interactions of science with society in the 11-16 curriculum

When we put together the report, *Rethinking Science?* for the Association for Science Education, we were trying to do several things at the same time.

The ASE had shown a lead by backing two very different curriculum packages (Science in Society and Science in a Social context) focused on the sixth form. The working party which I chaired had an 11-16 brief and included people with experience of both of these projects.

A brief justification leads into examples of what some teachers are doing now in this area in the 11-16 age range. We set out to influence curriculum thinking through other teachers' examples, and in the process draw out some of the teaching strategies they have used and the educational issues they have identified. The intention was to be practical, provocative and catalytic. The fundamental assumption was that we can all learn from the experience of colleagues. We were also keen to indicate the factors which might influence development.

The symposium which launched this document at the ASE's annual meeting in January generated a good deal of interest. The headline, "Keep sociology out of science, says gas chief" (TES, January 13), raises just the kind of issue involved.

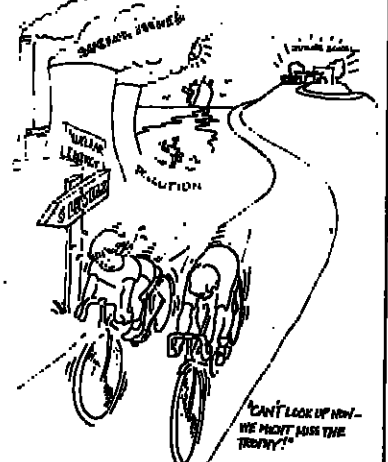
Most of us who are interested in the science education of students particularly below the sixth form in secondary schools, are aware of the mounting pressures for change. The HMI secondary survey (1979), called for "a broad education in science for all so that they gain some understanding of the impact of science and technology on industry, of the basis of national socio-economic decisions involving science, of biological and environmental factors."

The ASE policy document, *Education Through Science* (1981) urged as one of the six broad aims for science education "the attainment of a basic understanding of the nature of advanced technological societies, the interaction between science and society, and the contribution science makes to

our cultural heritage."

The DES in the consultative paper, *Science Education in Schools* (1982), suggested that the "problems which face schools are how best to introduce pupils in the whole ability range to the scientific basis of the technology which pervades their lives and helps to create the country's wealth... (and) relate scientific discovery to the economic, political, social and practical issues of modern life."

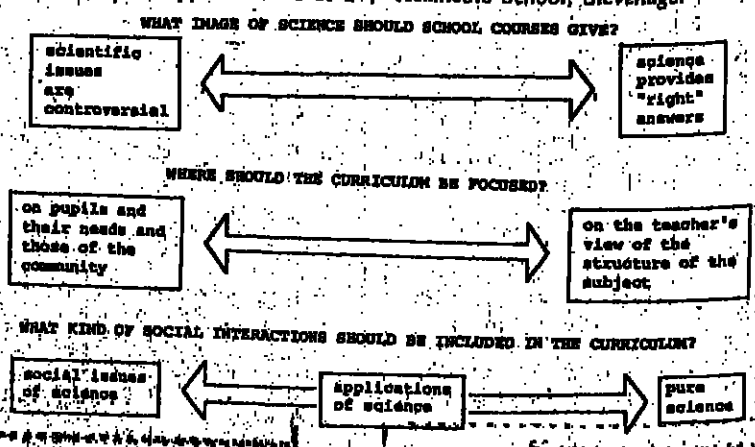
The consultative paper of the Secondary Science Curriculum Review (see page 47) embodies much of this thinking. What is more, these are international issues in the world of science education.



There is concern that much of the science that we teach owes little to fundamental thinking about an appropriate basis for a comprehensive school core science programme. We are familiar with (usually) the final aim of examination syllabuses making a sweeping reference to "social implications" or "economic importance", and all too often we fail to find any serious attempt at assessing objectives in this area. There is little encouragement to be found so far, in the detailed work which some examination board consultants have been undertaking for the development of a common system at 16-plus. Although the emerging criteria embody the social issues of science, despite the reticence of ministers, assessment items still carry a weary look.

There is no single, simple or correct answer to questions about an appropriate science curriculum for all. The curriculum review has no intention of producing a national curriculum complete with resource packs, in-service exercises and assessment to boot. Examples of good practice will be disseminated and broad principles may emerge, but, thankfully, there will still be legitimate professional activity for the science educator. Equally, in spite of clearly stated intentions, examination reform is unlikely to lead the real curriculum change which is needed to meet the challenge of the comprehensive school laboratory.

The professional science teacher will not take all this lying down, but may well need help to work out a practical response to the mounting pressure. The particular approach adopted by individuals or groups of teachers will depend on where they stand on a number of educational questions. Three such questions are shown below. Extreme answers are given under each question at opposite ends of a



consortium of answers.

Some approaches amount to teaching academic science and adding a few examples of how ideas are applied and used in the real world. Others have social implications embedded in the fabric of the curriculum, but maintain the ideas of science as the organizing principle. Yet others choose to start with issues and derive the relevant science concepts to explore them.

The degree of help given to teachers to explore these avenues and to work out effective strategies with their students will largely determine the pace of change. New approaches call for a change of style. Many science teachers think of themselves as purveyors of "neutral" scientific information. Reference to the social issues of science is bound to involve matters of opinion. Students, possibly for the first time, experience their own views counting for something in science lessons; they are asked to discuss issues and listen to others' opinions. Teachers report the increased motivation and involvement which this can bring, particularly from girls who have been turned off by more mechanistic approaches to the subject.

Personalities and foibles of scientists become a legitimate aspect of study, as does an understanding of how science is affected by political and economic arguments of the day. Small group discussions and role-play debates become part of the battery of techniques used by the science teacher. This is potentially threatening to the teacher who has not experienced the rewards and there is a great need for both resource materials and in-service training. The implications for initial training are also considerable.

Science teachers have much to learn from their colleagues across the curriculum for whom many of these "new" approaches are already taken for granted.

The broadening approach which is called for must imply a change in the content base assumed for school science. The pressure of content is particularly severe in examination courses, and it is frequently the more academic students following these courses who miss out on the social issues of science. The assessment of attainment in objectives associated with the social context of science must be taken seriously if teachers are expected to give it the emphasis it deserves.

The resource implications of any development are frequently hidden particularly in statements from those who control the means of providing the cash. It will take the coordinated and the active support of the Government local education authorities, training institutions and the ASE to sustain the necessary momentum.

There are some very good examples of all these aspects being carried out now by some teachers in *Rethinking Science?* The experience of science with a human face is a right we cannot afford to deny the next generation of school students.

Rethinking Science? is available, from the Association for Science Education, College Lane, Hatfield, Herts AL10 9AA, £2. (The cartoons featured in this article are taken from the Report)

Andrew Firman is deputy head at The Heathcote School, Stevenage.

EXTRA

Young ones

Simple Science. By Angela Wilkes and David Mostyn.
Usborne £3.95. 0 86020 761 7.
Hulton Practical Teaching series. Air and Water Activities. By Dorothy Diamond with Mary Brimacombe.
Hulton £3.50. 0 7175 1187 1.

Both of these books are designed to stimulate an active interest in practical science in young children through observation and simple experiments. Interestingly, neither book fits the traditional model of a school textbook although both can certainly be used as such. *Simple Science* has obviously been designed primarily as a book for children of eight to ten years to use at home rather than at school. At first glance the large format, strong binding, glossy cover and full colour cartoon figures appear to have more in common with Richard Scarry than the accepted icons and conventions of junior science. Yet there is no logical reason why this entertaining book should not have a useful function to play in the classroom as well as in the home.

Air and Water Activities is also unusual in that the book is ostensibly a teacher's guide or handbook yet the text is written directly at pupils, as in "Pick a few weeds..." or "Have you ever tried to run in the shallow end at the swimming baths?" The authors explain that this "is to make it easier for teachers either to read it with the children or to hand copies of the book over to the more able readers so that they can go ahead on their own". This is a laudable aim but one that is some distance away from the Usborne technique of using short captions and colourful, self-explanatory cartoons.

For instance, both books include an experiment to find out if hot air rises. The Usborne book explains the technique in about 50 words with the aid of amusing pictures showing a stereotype of a scientist (white coat, large round glasses, huge spotted bow-tie) holding a paper snake above a radiator. The Hulton book does the same in about half a page of text and a simple line drawing of a foil windmill, but suggests the use of a candle rather than a radiator. No doubt this will mean greater supervision on the part of the teacher but at least it is an experiment which can be carried out in summer when the radiators have been turned off.

Simple Science is best as a library book to stimulate an interest in science through these simple experiments. The presentation is entertaining and the suggested activities are well thought-out in the main, even if the illustrations sometimes (perhaps deliberately) give away the expected results of an experiment. *Air and Water Activities* is essentially a teacher's book. I doubt the usefulness of the device of directly phrasing questions to be read by children in this context, but the approach may well be appreciated by teachers whose junior science is rusty. The layout has been well designed with introductory teaching notes on general principles at the beginning of the book and specific notes at the end. In between lie 170 small, practical experiences which use air and water as the main materials and require no sophisticated apparatus. With this in your basket and *Simple Science* in the library there is scope enough to put science on a better footing with lower junior classes.

Philip Sauvain

Demanding

Advanced Biology. By J Simpkins and J I Williams.
Bell and Hyman £10.95.
0 7135 1387 X

It will come as no surprise to those who know this book, first published in 1980, to learn that a second edition has appeared this year. Well adapted to the requirements of modern biology, it demands and deserves a determined approach on the part of the student. This approach is, however, stimulated by the profuse and helpful illustrations and the fact that it is written in a style and language refreshingly welcome in a book of such a high academic standard.

RC Vernon

More reviews on page 33



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EXTRA

Something different to offer

Andy Cadman on the future of rural science in schools

"Rural studies is dead - long live rural studies."

These words were spoken by Peter Darn, the former HMI, at the start of the Bath Rural Science Conference in 1978. Rural studies is certainly not dead, but like so many other school subjects at the moment, is undergoing a long and difficult adaptation to the changing educational environment. These words may well read today: "Rural studies is dead, long live rural science."

We are at last moving, I think, to a less fragmented curriculum than we have had in recent decades. That means less specialization and could be the saving or destruction of rural science. It must not lose its identity but must take its place as part of the general education of pupils within a broader curriculum structure. It must interact with and complement other subject areas, especially but not exclusively science. It should be able to humanize the dry academicism of much traditional education, to exemplify scientific applications, to show social economic relevance.

In some schools it could replace or complement much of what is taught in biology nowadays. There is no need for rural scientists to struggle with the science department for the custody of photosynthesis, or the anatomy of the earthworm. There is a chance for first-hand investigation and observations from which not only the rural scientist but also the physicist, chemist and biologist can benefit. In some schools it cannot play an immediate part because it does not exist there yet, and financial and other resources, (such as rural science teachers) are not available.

In such schools the role I see for rural science would have to be taken by other teachers and subject areas. But

where it does exist and is strong and thriving, it should demonstrate that it can, and will play a central and dominant part in the total curriculum for school pupils.

In the past, far too many rural science teachers have retreated to their comfortable, but today beleaguered little islands of common sense. Now rural science teachers are beginning to realize that they can influence the style and content of science teaching in schools. They are beginning to discuss their subject positively, not arguing about titles but looking to the future in an optimistic way.

The evidence is to be seen in the recent publication by the Association of Science Education of their Rural Science Working Party's report, *Rural Science, an Applied View of Science* in the overwhelming support of a rural science symposium at Exeter University in January, where the enthusiastic audience overflowed into the corridor; and also in the Secondary Science Curriculum Review working groups where the numbers initiated by rural science teachers are very high up the list.

One might argue, I think, unprofitably, about whether rural science is basically scientific. I think few would deny, though, that it has scientific aspects, and that it can encourage students to adopt a systematic and investigative approach. Rural science teachers have the knack of motivating students who are unlikely to be attracted to a traditional science course. Rural science teachers must not look for overlap with traditional science; this has been their downfall in the past, leading to a devaluation of the subject.

Rural science has something different to offer by way of scientific study. Examples that occur to me include the opportunities to study animal be-



Rural science teachers have a knack of motivating students unattracted to traditional science courses.

haviour on quite a different scale to that usually possible in laboratories, and a study of plant and animal physiology and biochemistry by observation and experimentation on the whole organism with a view to maximizing its health, well-being and profitability, instead of a very academic approach from a cellular or even a molecular level. At the same time, a thriving rural science department must support with materials and ideas the teaching of other sciences. Rural science has much intrinsic scientific interest and there is no need to justify its existence by reference to traditional aspects of school science which too often have caused pupils to reject science altogether.

Clearly, all rural science pupils learn many skills from handling, observing and investigating plants and animals. Some of these will be of a general scientific nature, some more specific to agricultural science. All are valid. Similarly, pupils - especially the more able - will learn cognitive skills such as analysis and interpretation of data, hypothesis formation and testing and planning of investigations and so on - all higher-order scientific skills. Students are given the opportunity

for original scientific research as a group exercise or as individuals, the communication and interaction within these groups being very important. There is a large body of informed opinion that the acquisition of cognitive skills is easier through practical tasks.

While providing opportunities for developing a scientific attitude and encouraging scientific thinking through its links with the natural sciences, rural science with its humanitarian base line provides many openings for developing social consciousness and offers outlets for creative thinking, aesthetic appreciation and linguistic effectiveness and sensitivity. Many of these will occur through the care of living things, which offer an emotional experience many young people need. Many also need to work out ambivalent feelings with the guidance of a sensitive adult.

Practical work in the garden or the immediate stimulus of animals, especially their young, provide for many young people an emotional experience that is needed to release other energies. This personalized view can be at the exciting, emotional level of seeing a birth (or death). It can place the child



First crop of bananas from the tropical greenhouse

in his or her social and historical context as fundamentally a producer of food. It can focus attention on ethical issues such as factory farming, conservation of wild life and natural beauty, and pollution caused by the use of pesticides. It can be the learning of skills for the pursuit of a lifetime of leisure interests or the gleaming of information leading to original research findings. It is the area of science which most readily moves into a direct and rewarding concern not only for the pupils' own plants and animals but also

Something different to offer

continued

for his whole environment and for the general global problems facing modern man.

The rural economy is clearly a technology and one which, unlike some others, pupils find relatively easy to understand and accept. Agricultural decisions often involve choosing the lesser of two evils, weighing advantages against disadvantages, thinking of financial and social implications on one's actions. Fertilizer, pesticides, plant hormones, anabolic steroids, intensive agriculture are neither wholly right nor wholly wrong; they can be used wisely or irresponsibly. Through rural science pupils have the opportunity to look at such issues objectively.

The authors of *Alternatives to Science Education* (ASE, 1979) said: "A good science education should seek to develop a range of intellectual skills and cognitive patterns which help youngsters to handle the problems of growing up in and integrating with a society that is heavily dependent on scientific and technological knowledge and its utilization."

Rural science courses can, and frequently do, enable students to gain confidence and security, responsibility and maturity. Lord Bullock, (SSR 201, 57, 1976) talked about the monolithic, dehumanized image of science and expressed the belief that it was possible "to establish a view of it as a humane study deeply concerned with both man and society; providing scope for imagination and compassion as well as observation and analysis."

I would claim that rural science is more likely to achieve these ideals than most science as it is currently taught today. Many young people find the traditional approach to science education little suited to their aptitudes and abilities and consequently find little to interest them in subject areas which they consider to be remote from the



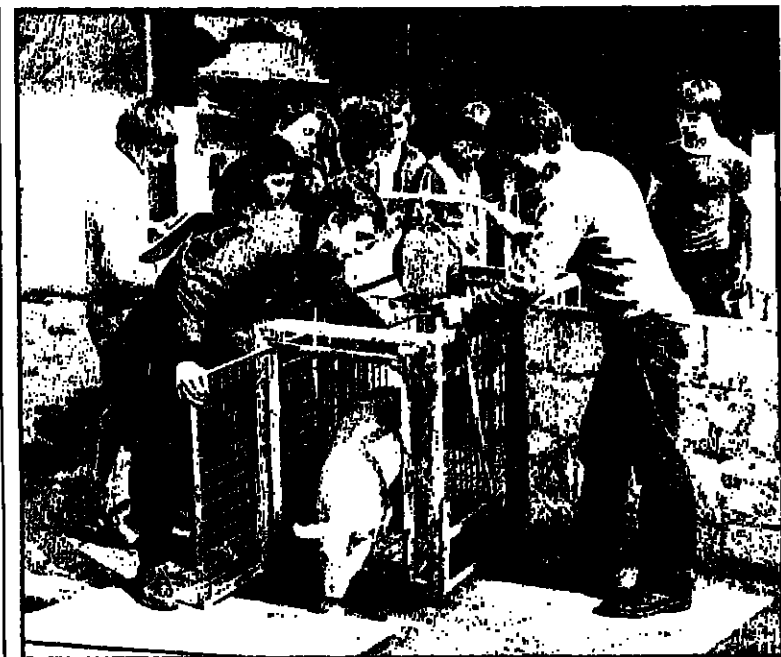
Direct experience of the environment

realities of life as they know it to be lived. Rural science offers a direct experience of the environment. Thus, whether the pupil is involved in some practical field work activity or classroom research the work can be related to some environmental experience.

Rural Science, an Applied View of Science, is available from the ASE, College Lane, Hatfield, Herts AL10 9AA. Price £1.25

Andy Cadman teaches at Belper High School, Derby.

EXTRA



Caring for animals offers an emotional experience many young people need.



Study of animal behaviour on a quite different scale from what is usually possible in a laboratory.

Mammals of Britain and Europe. By John Bishop. Kingfisher Books £1.95 0 86272 064 8

A succession of Ice Ages, the last of which was some 15,000 years ago and the arrival and spread of a human population with its inevitable effect on the habitats available has resulted in only about 200 of the world's 4,000 mammals being found in Europe. This relatively small continental population, however, is seldom well-known, even to an experienced field naturalist because many of the animals are nocturnal or seen only as something scuttling away in the undergrowth. As a consequence, Dr Bishop's well noted and illustrated book will be a valuable and much consulted guide.

Birds: Spotting and Studying. By John Stidworthy. 0 356 09718 8

Mammals: Tracks and Signs. By Roy Brown and Mike Lawrence. 0 356 09717 X

Macdonald, The Nature Detective Series. £1.50 each.

A successful field naturalist must necessarily be something of a detective too. In most of us, however, the skills essential to achieve this aim are not inbred; they have to be acquired and practised. But where to begin? These two books set it all out very clearly. Details and drawings are given, as appropriate to birds or animals, of likely sites for roosting or nesting and homes and routeways together with such information as bird flight patterns and animal droppings and tracks. Each book also includes drawings and clear descriptions enabling identity to be established of 44 of the commonest birds and 48 species of mammals, together with valuable information as to equipment necessary for collecting and practical work, and a useful bibliography.

R C Vernon

Open-ended projects

Ideas for Egg Races and other practical problem solving activities. Compiled by the British Association for the Advancement of Science. Obtainable from the Association at Fortress House, 23 Savile Row, London W1X 1AB. Price £2.50 + 75p P.P.

Do you fancy launching a satellite or designing an egg sheller for the disabled? You can do both or take up many other exciting challenges if you read this book. Compiled by the British Association for the Advancement of Science, it contains a wealth of ideas for open-ended, practical problem solving.

Ideas for Egg Races was primarily written as an aid for organizers of science and technology fairs and other out of school activities, but imaginative teachers will find many of its projects can be adapted and applied in their daily science teaching.

All the ideas, each on a technological theme, have been tried out and tested in competitions or fairs within this country. They include problem-solving activities for all age groups from infants to senior secondary pupils. Problems are graded for each age range, so teachers need not fear they will be too trivial or complicated for their pupils. In addition children can freely perceive the nature of the problem and produce possible solutions at their own level.

Teachers may be surprised to find children do not normally shine at science as lifted to a higher plane while "egg racing". An important value of the book for me is its potential to stimulate enthusiasm and a fun atmosphere in which those teachers of science who are convinced that science education should reflect our technological society, have the chance to further their ideal.

Perceptive teachers can use this material in at least two possible ways. If, for example, children use levers in the course of constructing an invention,

levers may then be investigated systematically, and the children can be trained to use the scientific method as a means of solving problems.

Perhaps your egg race may be the means to introduce the "need" element of the design process to produce an end product. If so, you will find this is a highly motivating beginning to your project. You may still, of course, be able to use the scientific method as a means of problem-solving within this framework. This source booklet will be a boon to those who seek to find all possible ways of helping young people develop scientific abilities. It stimulates the capacity not only to solve problems, but to perceive them in the first place.

Teachers may be interested in possible reasons why children are so motivated by egg racing. Some psychologists, such as Bruner believe that children are intrinsically motivated to learn through curiosity. If curiosity can be aroused and interest sustained, houseplants, marks and other extrinsic motivators are not necessary. People have a need to solve problems and the act of solving them is rewarding in itself. Children and young people are learning and solving problems all the time out of school, yet so many appear to lack motivation within it.

The trick would appear to be to capture their curiosity from the start, and Hunt in his "theory of motivation" believes the teacher's problem is to adapt the curriculum to the child. Egg racing can certainly provide the initial motivation. Yet to sustain motivation the teacher needs to help the pupil to achieve a degree of competence in producing a well finished and working end product. This is where the design process and scientific method may be used.

The booklet would greatly benefit therefore from a chapter on these strategies for solving problems. Its omission places at risk the realization of its full educational potential.

Eileen Chadwick

Making it clear

Quarks. By H Fritzsche. Allen Lane £12.95. 0 7193 15331.

The Cosmic Onion. By F Close. Heinemann Educational £5.95. 0 435 69171 6.

It seems only a decade or two ago that physics was a subject reasonably comprehensible by the intelligent layman. Now even specialists can be puzzled by the theories of their fellows. Atoms and electrons, quanta and relativity, are currently seen as mere stepping stones on the path of understanding the nature of our universe. The inquiries are pulsars, black holes and quasars, and these are but the advance-guard to what may prove to be the ultimate basic constituents of all matter, quarks.

A rational explanation of quarks, and the thought-processes which have led to their place in the scheme of things, is certainly overdue. Professor Fritzsche supplies the essential interpretation with authority and clarity. The movements from hypotheses, through experimentation and deduction, to a realization of new knowledge are traced without recourse to elaborate mathematics. The excitement of discovery and the philosophical undercurrents which may already be taking us close to a unified theory of matter, are conveyed in a lucid text which is supported by a splendid collection of relevant and illuminating illustrations. Not least valuable for the non-expert are a glossary and a bibliography.

F W Kellaway

Atomic secrets

Two volumes in an American series, *The History of Modern Physics 1900-1950*, from Tomash Publishers of Los Angeles, contain much hitherto classified and secret material. One details the work of the Alsos missions that monitored nuclear developments in the war years; the other gives the history of the Los Alamos laboratory, home of the first atomic bomb. A third volume deals with conceptual changes in American physics in the nineteenth century, an era of great illustrations. Not least valuable for the non-expert are a glossary and a bibliography.

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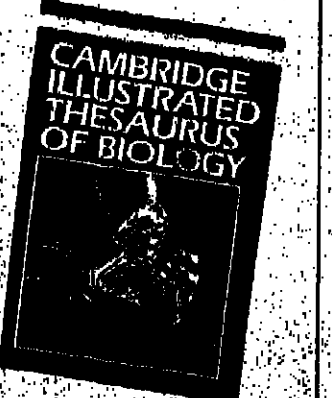
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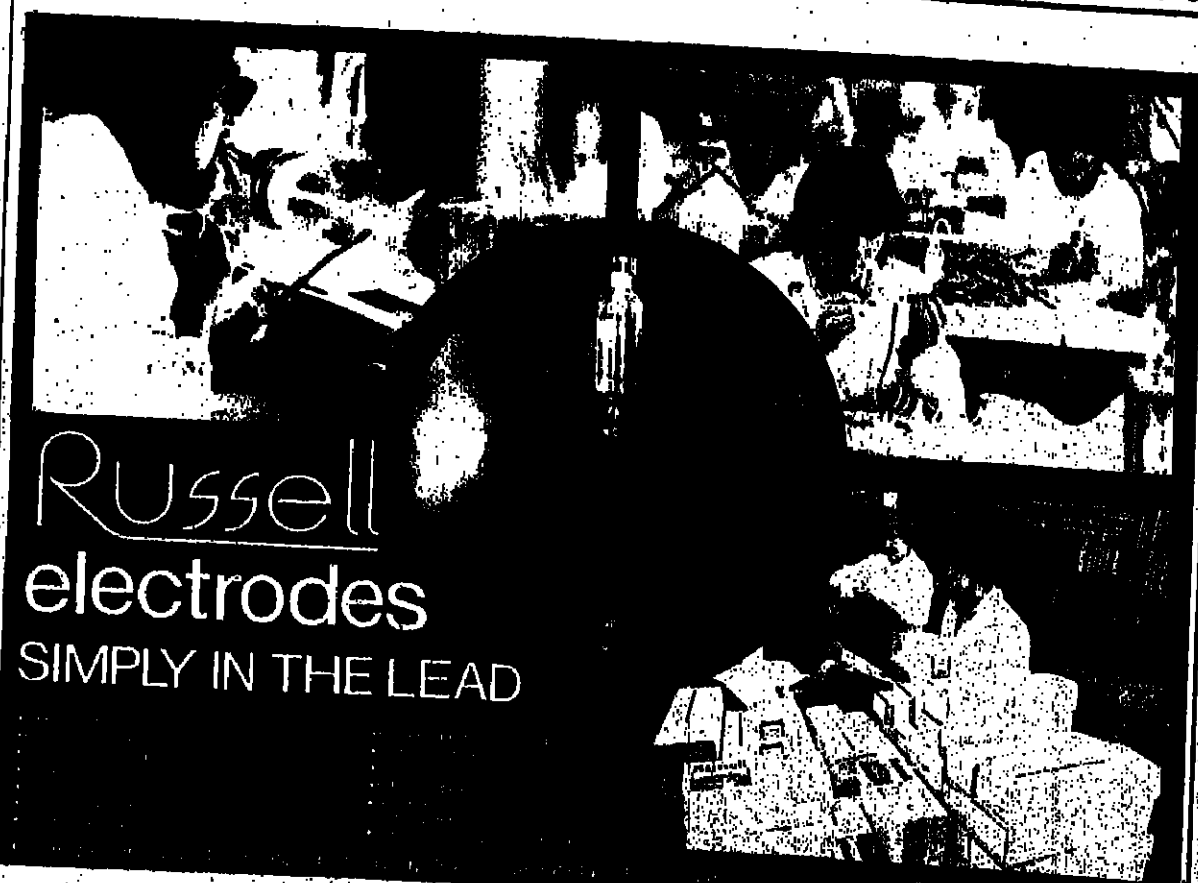
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More than microbes

Jim Teasdale reports on the growing awareness of microbiology in schools

A good indication of the general interest being shown in biotechnology, both by teachers and pupils, is that a one-day conference on "Biotechnology and Education" held in Cardiff on March 19, was heavily oversubscribed.

The conference, which welcomed delegates from as far away as York and London to find out about the scope of biotechnology and its implications for secondary education, was organized to coincide with the completion of a one-year research project about "Awareness of Biotechnology in Schools" based in the education department of University College, Cardiff.

Biotechnology has been the subject of many reports to governments and international agencies, and in one of the most recent of these it is defined as "the application of scientific and engineering principles to the processing of materials by biological agents to provide goods and services". Biotechnology does not apply to one area of industrial activity alone but to a whole range: the agro-food industry, pharmaceuticals and chemicals, the energy sector and some aspects of agriculture as well. "Biotechnology has a great future but it will come up against many constraints. It will not be a universal panacea and the projects in hand are liable to prove expensive and in many cases will not come swiftly to fruition".

The scientific research underlying biotechnology is constantly opening up new possibilities, some bordering on science fiction, and, quite naturally, it is to these that the media give attention. Although advances made in molecular biology have brought biotechnology into the news there is more to biotechnology than microbes and genetic engineering. The responsibility of teachers is to their pupils, which entails emphasis being placed on the technological realities of the society in which they live as well as the possibilities opened up by scientific research.

Part of this reality is the making of, for example, cheese, yoghurt and bread, biotechnologies that have been with us for thousands of years. Many teachers will make reference to these ancient technologies in their teaching and some will make their pupils aware of the use of fermentation techniques over the past 40 years for the production of antibiotics.

It must be emphasized that it is not necessary to contemplate the replacement of basic science teaching by special courses in biotechnology. Teachers have shown in the classroom that ways can be found of modifying

teaching approaches so that pupils become aware of the applied aspects of biology and of modern developments in biologically based industry (TES "Extra", September 24, 1982). Many topics with specific relevance to biotechnology are commonly found on examination syllabuses - antibiotics, clones, fermentation, micro-organisms, sewage treatment, vaccines and water purification.

In addition, many newer syllabuses ask for a technological awareness, and others include options on applied biology, medical and industrial biology. Furthermore, many other topics such as enzymes, evolution, genetics, respiration and symbiosis can be dealt with in such a way as to bring about an awareness of biotechnology. For example, the conventional treatment of enzymes can be enhanced by reference to their use in the food and drink industry and in the production of washing powders.

If biology is to be taught in an industrial context then I must pose the question whether this context should be limited to industries based on biotechnological processes. Surely there is a much broader framework which I can refer to as biological technology which includes agriculture, horticulture, dairy farming and forestry. Indeed, it is in these sectors of the economy that biotechnology is increasingly having an impact, such as



the use of tissue culture techniques in modern plant breeding programmes. Many teachers hold the view that resources relevant to biotechnology are not available. The research project has identified a limited range of material required from tape-slide presentations to textbooks. Most general science textbooks mention only briefly topics related to biotechnology, such as fermentation, antibiotics and waste treatment, although some recent general textbooks do refer to biologically-based industries.

There is certainly scope for written resources which emphasize the beneficial use to micro-organisms rather than their pathogenicity. A few more specialized textbooks deal specifically with biotechnology or aspects of it. A number of industrial organizations produce colourful information booklets, which taken together give a modern biotechnology. Science teachers who are members of the Association for Science Education will know that reading lists for older pupils are produced annually in the School Science Review. Recent lists include references, from readily available publications, to aspects of biotechnology. The Institute of Biological Sciences frequently carries relevant news items, articles and suggestions for suitable experimental investigations. Although videos and tape-alide sets are available they again cover only a limited number of topics. There seems to be a need for the development of a variety of resources which outline the overall scope of biotechnology, with younger pupils in mind. Some school science suppliers have recently brought a number of interesting experimental kits on to the market. These range from studies in agriculture

and horticultural technology, introduction to "natural" processes, cycle kit, enable a series of experimental studies to be carried out in a laboratory setting, to a more theoretical study of the principles of biotechnology. Others, such as those on immobilized enzymes, fill what was previously a gap in resources available for teachers, so that they now have the ability of realistically relating to their teaching programme to an industrial biological process.

What is particularly interesting is that a wide range of organizations beginning to show interest in biotechnology at school level. Many biotechnology courses include reference to biology and applied biology, and industrial processes. An Open University continuing education course next spring will give interested teachers an excellent opportunity to increase their awareness of biotechnology. The British Association has already held a one day symposium as well as a number of conferences for their youth section (BAYS). The Microbiology in Schools Advisory Committee, in conjunction with members of the Society for General Microbiology, will soon start a nationwide series of short courses for teachers and older pupils. Last year the ASE formed a sub-committee on biotechnology which will meet at regular intervals until mid-1985.

Some materials are being planned at present, by other bodies. Units of biotechnology intended for introduction to new science courses as part of the Education for Industrial Society Project in Scotland are currently on trial in schools. A number of teachers have started in individual schools to try to introduce biotechnology to their pupils. Some recently formed Secondary Science Curriculum Review groups and a few Science and Technology Regional Organisations have begun to explore ways of introducing biotechnology into the curriculum.

Not surprisingly, some of these are using existing or newly-formed syllabuses as their starting point. Trialling and Vocational Education Initiative proposals either refer to biotechnology or have a framework into which biotechnology can fit.

An interest in biotechnology and the school curriculum is beginning to develop in other countries. A series of information/discussion sheets was recently circulated to secondary schools in Holland as part of a general project on biotechnology, social, economic, industrial and scientific aspects related to biotechnology are mentioned. It has even been reported in the press that a group of Danish pupils with their teacher, have carried out a series of genetic engineering experiments in the classroom.

With suitable resource materials available the inclusion of an awareness of biotechnology in courses for years one to three should present few difficulties. However, in years four, five and six the major influence on what is taught and how it is taught is the examination syllabus. Teachers see their major responsibility as working with their pupils in a way that will secure good examination results. The inclusion of minimal reference to applications of biology in the examination syllabus is not sufficient. Perhaps wider use could be made of the procedure whereby some examination boards make reference to specific resource materials as part of the examination syllabus. If this is done, examination questions could be asked which require the use of such materials. The current revision of examination syllabuses for 16-plus and A level provides an excellent opportunity for developments in this direction.

Jim Teasdale is a teacher from Sunderland local education authority, who has been seconded to the education department of University College, Cardiff as a research fellow to carry out a research project, sponsored by the Department of Trade and Industry, and Education and Science, and the Welsh Office, on "Awareness of Biotechnology in Schools".

Three kinds of knowing

Mick Michell and Ken Dobson outline national progress of the Secondary Science Curriculum Review and report activities to date in Suffolk.

Those with a professional or personal interest in science education will recall the extensive debate on the subject during the late 1970s. Out of that debate has sprung the Secondary Science Curriculum Review (director: Dr Dick West) to review the science curriculum with the broad aim of providing "... a system of science courses such that all boys and girls - whatever their abilities and career intentions - receive an appropriate scientific education".

The Review is concerned not only with the wider issue of the role of science in general education and within the whole school curriculum. It aims to provide a framework of science courses and activities in our secondary schools that will better meet the needs of industry, commerce and further and higher education at the same time as providing an appropriate education for all young people growing up in an advanced scientific society.

The Review is different from most previous curriculum development exercises in that it does not depend upon a group of centrally based "experts" to provide the solutions to curricular problems, but relies instead upon the commitment and expertise of a very large number of practising science teachers, and others, working in their own localities. As a result of the interest shown by local education authorities and others during the planning phase of the Review in 1981-83, about 250 groups containing perhaps 3,000 teachers from the 80 participating local authorities have now actively involved in development work.

Activities are funded locally and the L.E.A.s concerned have been very helpful in the provision of teacher time and other support. It represents a large mosaic of activities, then, which is coordinated and supported by the full-time SSCR central team funded by the Association for Science Education, Department of Education and Science, Department of Trade and Industry, Health Education Council, Northern Ireland Council for Educational Development, and the School Curriculum Development Commission.

An example: Work in Suffolk. Suffolk County Council has seconded two teachers to lead teams in the development of a new double certification science course. Ken Dobson's task is to lay the foundations of the course in 1983-84 which is then to be developed by Chris Sunley in 1984-85.

It was immediately decided by team leaders and science advisers that the curriculum model would be one in which as many teachers as possible would be involved in the major decisions. Suffolk, like Gaul and traditional science, is divided into three parts. A steering group was set up representing subject and geographical areas, and this has in turn spawned "action groups" currently involved in writing learning units, considering new means of assessment up to 16-plus, and the place of microelectronics and computing. Soon groups will monitor course units to check that they are sufficiently "girl-friendly" and encompass tech-

nological developments and industrial and community links or applications; also, very importantly, that the units encourage the development and use of life skills as well as science skills and are sufficiently capable of generating exploratory work in science.

Assessment and testing. In Suffolk a prime task was seen as that of the provision of an assessment system that reinforced the ways of learning which the course sets out to develop. The Suffolk curriculum proposals the following as guidelines for assessment: The assessment system must be designed to produce a positive effect on learning and teaching; The assessment must be of the achievement of clearly defined objectives and processes, it will incorporate a greater element of criterion-referencing.

The team is developing a voluntary assessment, the Suffolk Star Tests in Science, which should prove as attractive to children as similar schemes in such equally enjoyable activities as canoeing, skiing and athletics. A mix of school-based and external assessment procedures will but on to this to produce a profile of achievement in the knowledge of science that rewards rather than discriminates and can be read with understanding by both parents and employers. This will mean writing in plain English and with sensible brevity.

What science people should know. It quickly became apparent that, to answer this, one must be fully aware that the answer for the year 1985 is unlikely to be the same as that for 2000 or even as that for 1990. Thus the curriculum must be thought of as organic and capable of growth and adaptation to a changing environment, rather than, say, as a splendidly architectural construction suitable for almost instant recognition as an ancient monument.

One problem with "knowledge" is that there is far too much of it about. As well as taking a very sharp knife to the content of science as currently taught, it is possible to look at a way of classifying that knowledge in such a way that teachers and students would be able to judge "how much" they were expected to teach or to know.

With this in mind a topic writing groups in Suffolk have been asked to consider areas of relevant knowledge in which important skills such as critical observation, experimental design, use of apparatus, communication, effective collaboration and problem-solving can be acquired. Put briefly, this has been defined as three kinds of knowing:

- Knowing how to;
- Knowing for understanding;
- Knowing about.

The overall design of a learning unit is built upon the notion of knowledge for a purpose. The products of all work are still a matter for debate by Suffolk teachers and for negotiation with examination boards, parents, students, the Review central team and all other interested parties. Confidence is high however, that the work will be of great use in schools in Suffolk and, hopefully,

ly, of interest and use in schools elsewhere.

Consultation. Another novel feature is the intention that the whole Review should be as open and consultative as possible, so that a genuine consensus as to what constitutes appropriate, relevant science for all children emerges towards the end of Phase 2 in August 1986. To this end, the document Science Education 11-16 (SSCR, April 1983) has been circulated very widely within educational, commercial and industrial spheres, and responses to the Review's proposals invited. The large number of responses received are being analysed and a second-stage consultative document will be issued soon. At this stage of the analysis responses can be classified into those facts about which there is almost complete agreement:

- All children should have science as a part of their curriculum up to the age of 16;
 - Genuinely equal curricular opportunities should be provided for girls and boys;
 - That schools should be encouraged to increase the pool of young people studying science and technology.
- There are, however, other aims of the Review which remain as issues needing further discussion:
- Should school science concentrate on scientific knowledge or scientific literacy?
 - Should a reduction in course content be accompanied by a shift towards an emphasis on skills and processes?
 - Will it be possible to create a

sufficient level of support to enable teachers to implement change and, in particular, will sufficient in-service support be forthcoming?

The Review intends to provide the ways and means by which such views can be discussed during the next 18 months and a consensus reached. What are your views about the sort of science courses which all children should follow? The SSCR would like to know them.

Mick Michell is deputy director, Secondary Science Curriculum Review, Ken Dobson is coordinator of SSCR work for the County of Suffolk. Further information about the SSCR can be obtained from Harford House, 101-103 Great Portland Street, London W1N 6BH.

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Written by an expert who, despite studying hedgehogs for 20 years, admits that he is still baffled by some aspects of their behaviour, this book should be on the shelves of everyone who puts out bread and milk or hears hedgehogs foraging in the garden. As Dr Morris says "it is one of the most instantly recognized and at the same time one of the most poorly studied British mammals".

Because of the protection afforded by their sharp spines there seems little need for hedgehogs to be solely active under cover of darkness, but in fact most of their food is also nocturnal, and there would be no advantage in changing the "habit" of "mildly" of

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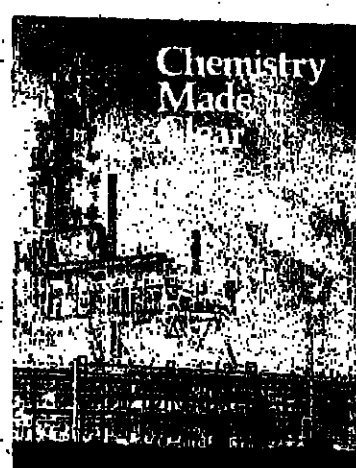
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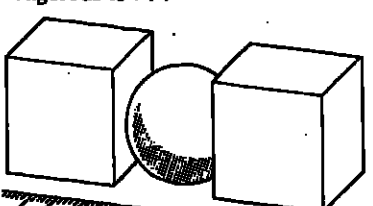
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There has to be an ultimate teaching approach for science lessons. I have discovered it! And if it happens to be a rediscovered wheel let me know how it rolls for you.

I have two dreams of a lesson. The first is safe and simple. It is so tightly structured that even that pupil will get it right. Tell them what to do and what to see. Exactly. Make sure that they do it and see it. Talk 'n' chalk to them and make them copy it all down just so. Give them a few questions to answer for homework. Learn it, test it. It's the Survival method.

Teacher tells → Pupils apply → Teacher confirms

The pupils sandwich. It could go like this:
"Here are two rectangular blocks (explain) and a marble. This is a millimetre ruler (explain). I want you to measure (explain) the block (explain how) and the diameter (what and how) of the marble. You must avoid parallax error (explain with picture of diagonal, placed eye). This is how to do it, this is the drawing, here is the table, it is dangerous to..."



It is safe and it is tidy and it is dead. And we do it all the time.

My other dream comes from a conscience. Perhaps I have been reading a cadet version of Bullock, or seen a Cowley tractor. Why not give them the apparatus and let them get on with it - no guidance, just chat 'n' pat and let them find out?

In my dream the apparatus is counted in and out like the sheep, nothing is broken, nothing is lost or coveted, and the pupils discover a rule and solve the problems. Then I give them a real problem which is solved instantly so that they can go away and write down exactly what they have achieved. It's the Chaos method.

Pupils explore → Teacher tells → Pupils apply

The teacher sandwich. Possibly like this:
"Here are two blocks and a marble, a very odd ruler and some graph paper. Measure the objects."

The ruler would be a "parallax ruler" with a scale that cannot get close no matter how it is held. A thermometer tube contains the plastic photocopy scale at its middle.



Eureka!

by Michael Williams

"It's a silly ruler", they say.

"Measure what?", they say.
"Keep going, you are doing well", I say as they begin to realize what the problems arise from the silly ruler and that the graph paper is safer and how big are those squares then? And off they all go and find out that it is done by... and they write down how silly the ruler was and why, and explain how the blocks may be used and draw some wonderful pictures too.

Then I give them the pebble. "Measure this", I say.

"What d'yer mean?"
"Make me a box, a proper one, to put it in."

It's to do with the meaning of words. They make the box.

It's dangerous and messy and full of life.

When I awake I know that the second method is the real way to teach, and that apart from safety and bad manners I would use it all the time. And I find myself back on the old drug of survival teaching. After all, I cannot have that noise in my laboratory, I have my colleagues (views) to consider. How honest am I being?

In a fit of multi-associational creative plagiarism, that is the stealing of the ideas of many people at once in a new way, I put together my Survival and Chaos into a plot that avoided the sandwich problem.

Pupils explore → Teacher tells → Pupils apply → Teacher confirms

This is it, the answer, the ultimate lesson. All styles and all philosophies are there. Here is Comenius and Hebart and Dewey and Spencer and Skinner and Piaget and Bruner and Ausubel and Armstrong and Karplus. Is this the golden touch?

I must state why I think it has value, what its value may be, and propose testing of the approach.

Learning is a process in which the learner has to be an active participant. The learner makes the learning. The learner has to operate on material, perhaps physically, most certainly mentally.

We teach too much because we are unsure. We do not think that the pupils are ready to perform properly, we do not trust our materials, we often teach over-advanced ideas. So we fall into the survival error of telling and imposing.

Pupils must have the chance to

explore areas without the insult of previously inflicted answers. Science lessons must surely start from the assumption that pupils can try to discover something. Yes, I must say, pupils. Some may not wish to, some may find it very hard and it is these we must provoke to learn. But to deny pupils the chance to succeed for themselves is the worst of teaching. I suffered the mess of seeing my children clean their own shoes, and it was a mess, but it's much better than doing it myself for ever. Autonomy for the pupils has to be a major aim, and it will not come without risk.

You say that not all pupils will find the answers, that some will have to be told. Yes, but the fact that they have tried will help them to grasp a total answer. "Oh, yes, of course."

You say that there is too little time. That is right, and the reason is overfilled syllabuses. What better time than now to change that situation. Science teaching must rid itself of the dross of excess. There is need for a new view.

Pupils must also have the chance to write for themselves. We should expect more of (say) third-year pupils at 13 who have spent over seven years in learning to communicate on paper. They can write freely at night, they can draw, so why the just-so approach? This is a matter for the writing policy of a whole school, but within a framework of headings and paragraphs and sound expectations pupils should be delegated the personal responsibility for their notebooks. Too many notebooks are written by pupils straight from a board, or worse from a text, for no apparent purpose. I like neatness but not for its own sake. I want a record of work really achieved.

So I want to test my four stage universal method. On a grey day I set to leave out or diminish stages one, two and three. I always include a clement of stage four, duty demands a final round-up. But on the day when I have gone well and that pupil is running, and I am on top of the world and ready for all the horrible consequences with some real energy, then I go for that stage one of exploration - the nearest to a "high" in teaching that there is. Everything and anything can happen.

With regard for no more than safety and common sense, the pupils explore the possibilities. Of course it's a bit of a course its really structured and carefully planned, but the pupils see the challenge and want to do it. Released pupils, given their chance to explore and the trust to achieve, these are the ones I want to teach. My ultimate simplification has given me the confidence to try Chaos rather than Survival.

Michael J. Williams, is head of the faculty of science, Barnstable School, Barnstable, Essex.

Running the show

by Jackie Hardie

In their lessons, teachers manage classes of individuals who may be of diverse or broadly similar ability, highly motivated or disenchanted. The content of a science lesson may include abstract problem-solving, demonstration of a difficult technique or individual practical work, perhaps using materials that are potentially hazardous.

As practical work needs expendable and specialist materials, these have to be ordered in advance and prepared by a technician on instruction from the teacher. Moreover, any lesson must be started and finished in a fixed time, as determined by a bell. In other words, teaching involves management skills. It is arguable that classroom management is relatively easy as it is clear who has the dominant role, the activities are determined by the demands of a syllabus and democracy is far from the rule. Science teachers should be able to translate their classroom-based skills to the management of adults, but this transfer is not easy.

The Association for Science Education recognized this when it published the work of Richard Hill and Harvey Adams as *Decisions in a Science Department*. Interest did not subside. In 1981, Sir Denis Roddie, chairman of British Gas was president of the association and at his instigation British

Gas and the ASE collaborated to explore further the issue of management training for science teachers. The result is *Management of School Science Departments*, which comprises four modules, "Meetings as Vehicles of Communication", "Time Management", "Staff Development" and "Understanding Managerial Roles". The modules are designed primarily for in-service training. Each is in a blue plastic folder which contains a tutor's guide and masters of OHP transparencies and participant hand-outs. All the material is referenced so is easy to trace. Each tutor's guide has clear objectives, a list of resources needed for the activities, the time that should be allocated to each one, and any pre-session preparation to be done by the tutor. The material is prescriptive as would be expected. The activities for the course participants include formal large group, "lectures", "buzz groups", role play and questionnaires.

In "Meetings as Vehicles of Communication", some of the specific problems that face teachers in departmental meetings are examined. Anyone using this material will have to think about the processes of planning meetings, generate ideas on how to plan, consider how small groups operate, what is happening in any

meeting and identify the key issues of leadership. There is an outline of Bales' interaction analysis which can be used to show how the events in a group meeting may not be completely unpredictable. It demonstrates the importance of fair delegation of work and the effects of size, personalities and expertise on the productivity and outcome of the meeting.

One major outcome of any meeting should be the achievement of consensus - for instance, on the departmental attitude to a proposed curriculum change - and it is shown how this can be achieved by an effective use of subject change - and it is shown how this can be achieved by an effective use of subject change - and it is shown how this can be achieved by an effective use of subject change.

However, the unexpected can happen and the unit deals with problems that may arise. We have all suffered people who dominate meetings or who are antagonistic to everyone else present; and strategies are suggested as to how to overcome them. That many a difficult situation can be diffused by wit and humour does not seem to figure among the recommendations.

It is emphasized that time is precious and this is explored in greater detail in "Time Management". Here we are shown how a rational and systematic approach to the planning of each day can lead to an increased work output without increasing the working day. In other words, how to do a departmental head's job in less than the 36-hour day that sometimes is needed.

Running the show

The ideas are built on those of an American called MacKenzie, and his voice features on the tape that accompanies this unit. There are hints on how to deal with crises, the masses of paper that arrive, how to keep meetings brief, make people shut up, do nothing that can be delegated and how important it is to have an effective filing system from which and to which material can be retrieved and refiled at speed. The unit shows you not only how to appear but also how to be efficient.

But putting theory into practice may mean changing the habits of a lifetime. "Staff Development" focuses on selection and appraisal. By looking at advertisements for school posts we are shown how the length and content can determine that too many unsuitable candidates or too few suitable ones apply. Even though advertising is the first step in the process of appointment, the module's writers recommend a systematic approach to the selection procedure. Their justification is that for the next 10 years, at least, posts are likely to attract more candidates (although I doubt if this will be true for physics), teachers will stay in post longer and promotion will be harder to get.

A simulated school, William Austin Comprehensive, is used for many of the exercises in this module. This school is probably as typical or as stereotyped as could be. This and the descriptions of the staff are seeded with ideas that would generate comment in even the most passive of groups. Everyone should find a description of a colleague they recognize or an image they must challenge. The unit also deals with interview technique and it will be interesting to discover whether the more informed someone is about the procedure, the better they perform; if it is true then interviewers will have to become more perceptive and astute and use "devices" to supplement the interview for selection.

Staff appraisal may already be part of a department head's role, and the writers regard the informal approach as the best. It is emphasized that formal appraisal can be seen as a threat and could generate suspicion and hostility. In fact there is no generally accepted strategy for appraisal in industry, so perhaps this side of industry does have a human face!

In "Understanding Managerial Roles" ideas about developmental performance are opened up; participants will work at developing skills in writing about ideas and perceptions of departmental performance. This is perhaps the most difficult of all the modules and deals with issues of staff management that would apply to the head of a school let alone a science department. In fact by deleting "science" from the package description, the whole package becomes one that can be used by any head of department. It might be an idea to make a present of it to the head of the school - if not the whole thing, then at least the unit on "Time".

The ASE and British Gas have committed to paper what many teachers may have been doing intuitively for a long time. But today, more than ever, heads of subject departments are under pressure from many sides as they examine how to integrate the work within and among departments, introduce curriculum change, face demands for participation, accountability and evaluation with a staff of different ages, attitudes, interests, values and calibre. By using this material, heads of department should get the help and reassurance they need.

However we must not lose sight of the real job of teachers. Performance in the classroom is what really counts. No matter how many management courses a person has attended, nor how many management strategies are adopted, if they are ineffective in the classroom they may as well give up. Credibility and respect by staff and pupils alike are the cornerstone of management success in a school. Management of School Science Departments is available from the ASE, College Lane, Hatfield, Herts. AL10 9AA. Price £20 complete or £5 per module.

Ms Jackie Hardie, is science adviser, London Borough of Waltham Forest.

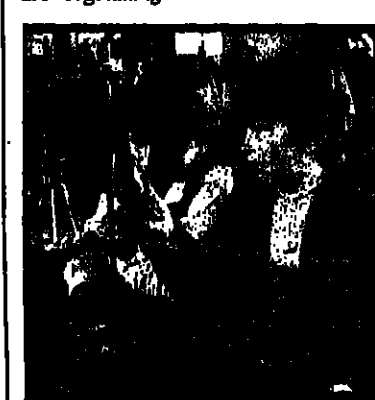
Girls into science

The state of the art

by Jan Harding

The question of girls and science is currently dominated by the WISE initiative. In designating 1984 as "Women into Science and Engineering" year, the Engineering Council and the Equal Opportunities Commission aim to draw attention to career opportunities for girls and women in engineering and science-related fields, and to alert education and industry to the need to create an environment which is attractive to and supportive of them. So the initiative is firmly focused on career opportunities in an industry where some, but not all, components are experiencing a current shortage of skilled personnel.

Initial reports of WISE activities organized by schools, colleges, local education authorities and industry suggest that efforts are largely concentrating on the first aim: communication and persuasion. A number of schools are organizing a "WISE Week" in



which girls are informed of employment opportunities, shown that women are already working in science and engineering, and sometimes enabled to meet women engineers, to see for themselves what a practising engineer and technology courses peaked in 1977 (five years before the fore, largely placed on girls to change their behaviour: to choose the sciences and a career in engineering rather than reject them).

It will be interesting to see how girls respond, but it will not be easy to identify the specific influence of WISE from that of efforts to involve girls more in the physical sciences and engineering which have gained momentum over the last five or six years.

Undergraduate engineering departments have recently shown modest success in increasing their intake of young women. Male entrants to engineering and technology courses peaked in 1977 (five years before the fore, largely placed on girls to change their behaviour: to choose the sciences and a career in engineering rather than reject them).

This has coincided with the Engineering Industry Training Board's programme of residential courses for sixth-form girls (studying appropriate subjects such as mathematics and physics) within university engineering departments. It is unlikely, however, that these "insight" courses have increased the pool of girls with relevant qualifications. More girls are studying physics, but Department of Education and Science statistics show that over the period 1976-81 the numbers of boys doing so has increased more sharply. Whatever has been instrumental in persuading pupils into physics over this period has influenced boys more than girls.

	1976	O level	1981
Girls	28,613		48,008
Boys	108,118		131,280
	1976	A level	1981
Girls	7,131		10,269
Boys	34,872		42,438

(Source: EITB Occasional Paper No.11)

It is now recognized that early curricular choices away from the physical sciences pre-empt many choices of careers in science and

technology. A number of WISE initiatives are being directed towards younger girls. The collaboration of EITB with Lincolnshire to provide "Technology days" for third-year girls and Hatfield Polytechnic's planned activities for second-year girls from Hertfordshire schools are examples of these.

The girls and science campaign over the seventies has been, perforce, a consciousness-raising exercise, creating an awareness and an acceptance that a problem exists. The WISE initiatives have been able to capitalize on the concern generated, and provide an added impetus.

Major projects in that campaign, such as Girls into Science and Technology (GIST) in Manchester, the Schools Council "Reducing Sex Stereotyping in Schools", and Girls and Technology Education (GATE) at Chelsea College, have interpreted the problem more broadly, perceiving the low representation of women in science-related careers as a consequence of women's alienation from science and technology and the low status of women in public life. In this context it is important to focus on the second WISE aim, "to create an environment which is attractive to and supportive of girls and women" and to identify ways of achieving such an environment. Progress has been made in doing just this.

The GIST project worked with schools analysing the pattern of pupil's interests in science and enabling teachers to examine their own assumptions about the appropriate behaviour for boys and girls, their classroom practices and their curricula. The final report of this project will soon be published, but interim papers are available from Manchester Polytechnic.

A working party set up by the Physics Education Committee of the Royal Society and the Institute of Physics reported on "Girls and Physics" in 1982, surveying the factors

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Girls into science

which contribute to girls' under-achievement in physics and making recommendations to remedy this. Physics teachers are impressed that the report, carrying the approval of both these learned institutions, expresses such concern for girls and is prepared to recommend the trimming of physics syllabuses in the cause of good physics education and their modification to include social and applied aspects, which are found to associate with girls' choice of physics.

In the 18 months following the appearance of the report, Sheila Saville, from the Institute of Physics, has been invited to address many groups of teachers on the subject of "Girls and Physics". The Institute is preparing an INSET pack of materials to be available to science advisers for use in courses for teachers.

The publication of the Schools Council/EOC report, *Switched-Off - the Science Education of Girls*, in 1983 has also aroused considerable interest.

The author is fitting in an average of two meetings a week, talking with teachers, parents and to girls themselves.

Science teachers are actively concerned to find out what can be done to improve matters. The strategies recommended in reports have largely been suggested from results of ad hoc empirical research and have not been extensively tried out over time. We have now reached a stage where schools need to draw upon the reports available, to decide on a course of action which is acceptable within the school, and to put it into action and to monitor it. Some 30 schools in different parts of the country, and one whole I.E.A., are collaborating with me at Chelsea College, in a "Strategies in Action" project. It is hoped to publish case studies of the use of a variety of strategies.

There is no doubt that changes have to be made in the context and content of science education, if we seriously wish to increase girls' representation in science and technology and to prevent the alienation of women from them. I

will focus only on two important tasks. First, we must take seriously the charge that the way we currently teach physics and chemistry may be alienating all but those of a particular personality type (usually male), who seek certainty and control, but fear ambiguity and emotional expression. Neither science nor society is well-served by such a selection.

A recent strand within the girls and science research is the suggestion that differential nurturing may cause individuals to be differently connected to the world. In our culture this frequently means that boys may seek to abstract, possess and control, while girls relate to the world more reciprocally and empathetically. The ways of working that these different approaches may demand and, indeed, the kind of knowledge that they may generate, are likely to differ. Studies of women scientists at work, by Goodfield and Fox Keller, make exciting reading in this context.

Second, we must reconsider the place of science and technology in the curriculum. At present the separate sciences are in competition with each

other and with technology in the curriculum. Moreover, within craft technology pupils are frequently faced with alternatives even earlier and experience has shown that, whenever options are offered, stereotypes of "appropriate" behaviour influence the choices pupils make.

Some of the ways in which technology is being introduced into the curriculum, through "control technology", "modular technology" and some TVEI courses, give much cause for concern, for the same mistakes are being made that have been identified in the science curriculum. It seems that learning is not transferable and this is not surprising since different communities are often involved. But it means that painstaking consultation is needed also in these areas, if sex differentiation is to be avoided.

When we move beyond schools we find little concern for young women and science in main-stream further education, although some colleges and polytechnics are advertising special entry courses in, for example, micro-electronics for women with little or no background in science.

In employment some positive initiatives are being taken: BP is seeking to identify any barriers which are detrimental to the career development of women scientists and engineers within the company.

At a different level the Young Women's Christian Association has been working with girl apprentices and the firms who employ them to facilitate their acceptance into the work force. Discussions at WISE conferences constantly draw attention to the problems for women's careers of the "baby-break", as it is called. We are still a long way from enabling families to take care of children without penalizing the career development of one of the parents. This is a particular problem for science-related work which is difficult to evaluate from a home base. The message to girls in science is - delay the family, get qualified, and established and then you may negotiate from a stronger position.

Dr Jan Harding is a lecturer at the Centre for Science and Mathematics Education, Chelsea College, London.

Follow my leader

Teacher leaders in primary science. By Martin Baxter

During the last few years the primary science bandwagon has rolled through the vacuum created by the HMI report on primary education. The latest Assessment of Performance Unit report, *Science at age 11*, is a measure of the progress, or lack of it as the case may be, which has been made. The publishers have had a field day and courses have mushroomed to satisfy the voracious appetite of teachers searching for "truth".

Why then, may we ask, has not more progress been made? Why are so few 11-year-olds unable to repeat measurements or observations, to check results, control variables, record the fine details of observations, observe the correct sequence of events, plan investigations, explain how predictions are arrived at, and describe patterns in observations and data?

The reasons are complex but they are certain to include the inability of both trainers and publishers to break down the persistent framework which so many primary teachers have established about science. For most people reading this science is dominated by a complex and powerful mixture of ideas and laws which are difficult to understand. This was compounded by their secondary education, which is 'coy about acknowledging that children might plan experiments for themselves, record painstakingly the fine details of observations and explain how predictions are arrived at.

It is not surprising then, that instead of seeing science as an exciting and powerful learning tool in the general education of children which develops through their experience, they are confused by the advice and uncertainty of the way ahead. In recent years science fairs have illustrated to a wide audience that primary teachers can rise to the occasion. Not only has the quality of science work been high, it has been interwoven with mathematics, language, art and environmental studies.

Why then does uncertainty remain in the minds of so many teachers? How



can they provide a better match between scientific ideas and the capabilities of children? How do they develop progression in science work? How do they plan a policy for science in a school which is acceptable to and understood by other teachers? This last question is a tall order requiring sophisticated management skills, and so often it is a Science 2 teacher with a traditional background of science who is expected to achieve success against the other competing claims of the primary curriculum. It is no wonder that more progress has not been made.

In order to address this problem several approaches have been used, including short practical workshops and longer courses designed to improve the general scientific background of primary teachers. However, there are always those teachers who have seen the light, or even a glimmer, and who have something to offer others. It is one thing to ask teachers to teach children and another to require them to lead a team of professionals, often reluctantly, through what can prove to be a swamp. When are such teachers given the time and opportunity to learn interpersonal and communications skills, classroom observation and evaluation, and about the

management of change? What other approaches might be considered in order to train and support competent practitioners in the abilities necessary to disseminate ideas on the teaching of science in the primary curriculum? School focused in-service training is one way of accurately identifying the needs of schools and individual teachers within them. However, if this need is to be fully realized then teachers have to rely on one another to provide the necessary professional support. With such an approach it is crucial that what we can term "teacher leaders" are able not only to clarify what science is within the context of their personal view or framework, they must be adept enough to identify the frameworks of others, including children, and tease them out in order to develop progression, cohesion and integration in the curriculum.

A training course which evolves from this brief needs to develop different skills in several phases. In phase one, teachers might be given opportunities to appreciate that there are many views about science and the one which is taught in secondary schools has become distorted, largely by an inappropriate examination system.

different science framework from the child who has made a contraption from Lego or become engrossed in *Tomorrow's World*. It is the cornerstone of a teacher's art that they can communicate to children through an adult-to-child relationship.

How often is this same teacher expected to switch during breaktime to an adult-to-adult relationship, identify the needs of a colleague and provide appropriate support? In *Games People Play*, Berne focused attention on the three ego states in each individual - parent, adult and child. While complementary transactions are the natural order of healthy human relations, crossed transactions lead to acrimony and misunderstanding. Training through a simulated staff meeting and video recording can draw attention to a light hearted way to some of these transactions and consider their influence on the styles of decision making which take place. Also through a simulation on the detailed planning of a project, teachers might be encouraged to develop counselling skills in which they identify the personal strengths and weaknesses of their colleagues, and then develop the most appropriate communication skills, which certainly includes the ability to listen.

All simulation has its limitations and there is also a need to provide opportunities for discussion, perhaps with local headteachers, on the problems of making changes and how these relate in particular to the science curriculum. By the time that the third phase is reached, the teachers should have established a degree of confidence in their ability to convey ideas to others, and it is now necessary to focus down on the classroom, its organization, and the need for resource development. Planning a programme of work which contains both behavioural and content objectives does not come easily to teachers who have found success in following their intuitive feelings about the needs of their children. However, if they are to help others to develop progression, cohesion, and integration then they need to have the skills necessary to plan a scheme of science work.

Finally, in any system, whether it be management, electronic or educational, the only way in which we can monitor progress is through the feedback we get from assessment and evaluation. Too often children have gaps in their scientific experience or are allowed to wander too far from the focus. While this is certainly not always inappropriate, when it happens we should be aware of it and it should always be in a position to direct the learning experiences of the children. Therefore, without a consideration of the tools which a teacher might use for the assessment of pupils and the evaluation of schemes of work and published material, we are missing out a vital link in the chain which is essential for the 'management' of planned development and change.

The Assessment of Performance Unit report indicates that despite massive efforts too many primary schools are still failing to provide an appropriate and adequate scientific experience for young children. A strategy for the development of primary science must seek to develop the biggest resource that we have, our teaching force. Other teachers are providing with the necessary skills to understand what

science is about and to convey their ideas to both adults and children but no amount of money spent on published material or superficial in-service courses will create real change within the classroom.

Martin Baxter is a general education inspector in Northamptonshire.

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PRIMARY EDUCATION
continued

BOLTON
BOLTON SCHOOL
BOYS DIVISION
H.M.C. Insp. Day, Junior
Dept. 1200, 11
Days

Required for September 1984
1st and 2nd year classes
for a class of 20 pupils
with Maths and Science as
a second teaching subject.
Willingness to participate
in the games programme
(soccer, rugby, cricket) a
strong recommendation.
Further details available
from the Headmaster, Bolton
School, Bolton BL7 4PA as
soon as possible. (130022)

EALING
LONDON BOROUGH OF
ST JOHN FISHER R.C. FIRST
& MIDDLE SCHOOLS
Surrey Road, Northolt
Middlesex UB8 3PH
Required for 30 April 1984.
Temporary appointment from
September 1984 to 31st August
1985. Two Catholic
First School classes and 3rd year
class.
Application forms obtainable
from the Head (S.A.E.) at the
school, 100 Surrey Road, Northolt
4 April 1984. (14390) 110022

EALING
LONDON BOROUGH OF
MIDDLE SCHOOL
100 Surrey Road, Northolt
Middlesex UB8 3PH
Required for 30 April 1984.
Temporary appointment from
September 1984 to 31st August
1985. Two Catholic
First School classes and 3rd year
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Application forms obtainable
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school, 100 Surrey Road, Northolt
4 April 1984. (14390) 110022

HARINGEY
Progress with Humanity
ST JOHN VIANNEY R.C.
PRIMARY SCHOOL
Surrey Road, Northolt
Middlesex UB8 3PH
Required for September 1984
teacher for infant class.
Candidates should be committed to
Catholic ethos. Candidates
should be available for a
trial period in the school.
Application forms obtainable
from the Head (S.A.E.) at the
school, 100 Surrey Road, Northolt
4 April 1984. (14390) 110022

KENT
COUNTY COUNCIL
Education Department
ST. PETER'S R.C. (AIDED)
WATLING SCHOOL
Watling Road, Maidstone
Kent ME14 4JH
Required for September 1984
teacher for infant class.
Candidates should be committed to
Catholic ethos. Candidates
should be available for a
trial period in the school.
Application forms obtainable
from the Head (S.A.E.) at the
school, Watling Road, Maidstone
4 April 1984. (14390) 110022

NEWHAM
LONDON BOROUGH OF
PORTWAIN JUNIOR SCHOOL
Portwain Road, London E15
3JW
Required for September 1984
teacher for infant class.
Candidates should be committed to
Catholic ethos. Candidates
should be available for a
trial period in the school.
Application forms obtainable
from the Head (S.A.E.) at the
school, Portwain Road, London
4 April 1984. (14390) 110022

SOUTH GLAMORGAN COUNTY COUNCIL
PRIMARY SCHOOLS
TEACHING
APPOINTMENTS
Scale 1

It is expected that there will be a limited number of vacancies for primary trained teachers in September 1984, and applications are now invited.

Application forms may be obtained on receipt of a stamped addressed foolscap envelope from:

The Director of Education
Education Offices
Kingway
Cardiff CF1 4JG

to whom applications should be returned within 14 days of the appearance of this advertisement.

KIRKLEES
METROPOLITAN COUNCIL
EDUCATION SERVICES
EDUCATION OFFICE
School Hill, Kirkburton,
Huddersfield
West Yorkshire WF14 1JH

Required for September 1984
teacher for infant class.
Candidates should be committed to
Catholic ethos. Candidates
should be available for a
trial period in the school.
Application forms obtainable
from the Head (S.A.E.) at the
school, School Hill, Kirkburton
4 April 1984. (14390) 110022

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LONDON BOROUGH OF
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4 April 1984. (14390) 110022

REDBRIDGE
LONDON BOROUGH OF
ST. AUGUSTINE'S
ROMAN CATHOLIC
PRIMARY SCHOOL
Hemlock Road, Gt. Gt. Ouse
Hertfordshire SG12 8JH
Required for September 1984
teacher for infant class.
Candidates should be committed to
Catholic ethos. Candidates
should be available for a
trial period in the school.
Application forms obtainable
from the Head (S.A.E.) at the
school, Hemlock Road, Gt. Gt. Ouse
4 April 1984. (14390) 110022

SURREY
GUILDFORD HIGH SCHOOL
Guildford Road, Guildford
Surrey GU1 1JH
Required for September 1984
teacher for infant class.
Candidates should be committed to
Catholic ethos. Candidates
should be available for a
trial period in the school.
Application forms obtainable
from the Head (S.A.E.) at the
school, Guildford Road, Guildford
4 April 1984. (14390) 110022

WALTHAM FOREST
EDUCATION SERVICES
EDUCATION OFFICE
School Hill, Kirkburton,
Huddersfield
West Yorkshire WF14 1JH

Required for September 1984
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4 April 1984. (14390) 110022

SECONDARY EDUCATION
continued

HUMBERSIDE EDUCATION
COMMITTEE
HEAD
Required for September 1984.
for St. Mary's RC (Voluntary Aided) Senior High School for Girls,
Ingelme Lane, Hull.
545 Pupils on roll, Burnham Group 10, Age range 13-18.

Applications are invited from suitably qualified and experienced
teachers for the post of Headteacher which will become vacant
with effect from 31st August 1984, following the retirement of the
present Head. The successful candidate will be expected to
commence duty in September 1984.

The Governors would welcome applications from Practising
Catholics.

Application forms and further particulars are obtainable
from the Clerk to the Governors, c/o Director of Education
(HQ Staffing), County Hall, Beverley, North Humberside.
(0482-867131, Ext. 3316) to whom completed forms should
be returned not later than Friday, 30th March 1984.

WEST
GLAMORGAN
COUNTY COUNCIL
EDUCATION DEPARTMENT
TEACHING VACANCIES

Applications are invited from suitably qualified persons for
the following post in the Authority's service, to commence in
September, 1984, or as soon as possible thereafter.

ROYAL BOROUGH OF
KINGSTON UPON THAMES
HEADSHIP
Required September 1984
Cecil Jones High School
(Group 12), Eastern Avenue,
Southend-on-Sea.

Applications are invited from suitably
qualified Teachers with appropriate
senior experience for the Headship of this
11-18 Co-educational Comprehensive
School. (Removal and disturbance
allowance scheme in operation).

BERKSHIRE
MAIDENHEAD TEACHER
CENTRE
Edwards House, 150
Road West, Maidenhead,
Berkshire SL6 1JH
Required for September 1984.
for St. Mary's RC (Voluntary Aided) Senior High School for Girls,
Ingelme Lane, Hull.
545 Pupils on roll, Burnham Group 10, Age range 13-18.

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CYNGOR SIR
GWYNEDD
COUNTY COUNCIL
PRIFATHRO/
PRIFATHRAWES
YSGOL DAVID HUGHES
PORTHAETHWY

Gwahoddi cefaleidau am swydd PRIFATHRO/PRIFATHRAWES
Ysgol David Hughes, Porthaelhwy i ddechrau dylatwyddau ar
1af Medi 1984, neu chymryd a syn bosibl ar ôl hynny.
Gwybodaeth o'r Gymraeg yn hantodol.
Nifer ddiwylliaeth 1,380-Cyflwr Grwp 12.
Ffurfiennell cael a manylion pellach oddi wrth y Cyfarwyddwr
Addysg, Swyddfa Addysg, Lôn Priestley, Caernarfon.
Dyddiad olaf i derbyn cefaleidau: 13 Ebrill 1984.
(The above is an advertisement for the post of Headteacher for
Ysgol David Hughes, Menai Bridge. Knowledge of Welsh
essential).
Gwilym E. Humphreys
Cyfarwyddwr Addysg

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11-18 Co-educational Comprehensive
School. (Removal and disturbance
allowance scheme in operation).

Education
Head Teacher
The Lilley and Stone School,
London Road, Newark, Notts.

Qualified teachers are invited to apply for appointment
as Head Teacher of the above voluntary controlled
14-18 Upper School. The vacancy is created by the
retirement of the Head Teacher.
Number on Roll: 496 + 104 in Vith Form
Salary Group: 10

Vacant: 1st September, 1984.

Application forms and further details may be
obtained by forwarding a stamped addressed
foolscap envelope to the Director of Education at
County Hall.
Closing Date: 6th April, 1984

Nottinghamshire
County Council
County Hall West Bridgford
Nottingham NG2 7DP

HEAD
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UNATTACHED TEACHERS FOR MOTHER TONGUE

UNATTACHED TEACHERS FOR MOTHER TONGUE

12-11-1964

man Catholic
(phone)
a boy, boarding, 11 - 18
experienced part-time
hours required in the fol-
lowing instruments: PIANO,
VIOLIN, VIOLA, CELLO,
FLUTE, PERCUSSION. (ALL
imaginative musicians are
needed to be able to com-
municate their enthusiasm and
talent to a high standard.
Opportunities exist for ex-
cellent work, concerts, recit-
als, etc.)
Applications and further
inquiries to Jan Zuchowski,
Director of Music, Douglas
County, Underwood School,
Box 579, 15400
15584

Pastoral

Hampshire

ST. WITHUN'S SCHOOL

Winchester, Hants.
(400 girls aged 11 - 18 years)

EAST SUSSEX

NEWLANDS MANOR

Sutton Priors, East Sussex BN25 3PL

(Independent Boarding School for Boys)

(Tel: (0323) 890309)

Applications are invited from candidates with considerable experience of boarding school life.

Free accommodation in an attractive cottage situated in close proximity to the school will be available.

Burnham Scale 2 for appropriate experience and teaching duties, together with an additional salary for wife and relation to duties undertaken.

The post will incorporate the teaching of English throughout the school and responsibility for this Department.

Applications in writing, with full details of curriculum vitae, and the names of two referees, to the Headmaster, (0323) 890309

LONDON

THE ROYAL SOLDIERS' DAUGHTERS' SCHOOL

Hampstead, London NW5

(130 girls aged 5 - 18)

Applications are invited for the post of DEPUTY PRINCIPAL. Responsibilities are those of a boarding school principal, but the post is part-time, and the holder should be a P.E. trained and experienced in the management of a boarding school.

Apply for details, with C.V. and names of two referees, to the Headmaster, The Royal Soldiers' Daughters' School, Hampstead, London NW5 4UD (0703) 7708 (0323) 184018

Other Assistants

DEVON

STOVER SCHOOL

Newton Abbot, Devon

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

An interest in Library Organisation and/or Duke of Edinburgh would be an advantage.

Please apply in writing to the Headmaster, (0323) 890309

HERTFORDSHIRE

QUEENSWOOD SCHOOL

Sheppards Way, Rickmansworth, Herts. SG8 6JH

(150 boys, 11 - 18 years)

Headmaster Mrs. A.M.B. (0438) 514267

Applications are invited for a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Queenswood School, Sheppards Way, Rickmansworth, Herts. SG8 6JH (0438) 514267

COVENTRY SCHOOL

(King Henry VIII and Bablake; HMC, coeducational)

DIRECTOR OF PHYSICAL EDUCATION

Owing to Mr. E. Jones's appointment as Senior Master a vacancy will arise in September for a DIRECTOR OF PHYSICAL EDUCATION at BABLAKE (340 girls and 470 boys aged 11 to 18). The excellent facilities include indoor swimming pool, squash courts, games hall, multi-gym and tennis courts at the main school site, while the main playing fields are a mile distant. The successful applicant will be expected to coach Rugby to a high standard and will preferably be able to make a major contribution to cricket or athletics. The P.E. department includes two full-time and two part-time members, while colleagues from many subject departments assist with specific activities. Salary will be Burnham Scale 4 plus Coventry School Allowance. Details of the school in PSYB. Apply by letter giving details of qualifications and experience together with names and addresses of referees to the Director, Coventry School, Bablake, Coundon Road, Coventry CV1 4AU. (0456) 640000

WEST SUSSEX

WOODARD GIRLS' SCHOOL

Woodward, Hants.

Wanted for September 1984 a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Woodward Girls' School, Woodward, Hants. RG2 6JH (0323) 890309

Other Assistants

BRADFORD

BRADFORD GIRLS' SCHOOL

Bradford, W. Yorkshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Bradford Girls' School, Bradford, W. Yorkshire (01274) 340000

LONDON

CITY OF LONDON SCHOOL FOR GIRLS

London EC2V 6BS

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, City of London School for Girls, London EC2V 6BS (0703) 7708

MANCHESTER

WILLIAM HULME'S GRAMMAR SCHOOL

Manchester M13 9PR

(HMC/Independent)

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, William Hulme's Grammar School, Manchester M13 9PR (061) 275000

Worcester

WORCESTER COLLEGE

Worcester, W. Midlands

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Worcester College, Worcester, W. Midlands (0905) 210000

Physical Education

Hertsfordshire

DERBY HIGH SCHOOL FOR BOYS

Derby, Derbyshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Derby High School for Boys, Derby, Derbyshire (0332) 514267

RUGBY

RUGBY SCHOOL

Rugby, Warwickshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Rugby School, Rugby, Warwickshire (0583) 640000

NORTH WALES

LINDISFARNE COLLEGE

Lindisfarne, Cumbria

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Lindisfarne College, Lindisfarne, Cumbria (01924) 340000

EDINBURGH

MERCHISTON CASTLE

Edinburgh

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Merchiston Castle, Edinburgh (0703) 7708

SURREY

CROHAM HURST SCHOOL

Croham Hurst, Surrey

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Croham Hurst School, Croham Hurst, Surrey (0438) 514267

Cambridge

THE PERSE SCHOOL

Cambridge

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, The Perse School, Cambridge (0223) 340000

Other Assistants

CHESHIRE

THE GRANGE SCHOOL

Grange, Cheshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, The Grange School, Grange, Cheshire (0925) 340000

LONDON

NOTTING HILL & EALING

Notting Hill & Ealing, London

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Notting Hill & Ealing, London (0703) 7708

Rural Science

OXON

BIBDORF SCHOOL

Bibdorp, Oxford

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Bibdorp School, Bibdorp, Oxford (01865) 340000

Other Assistants

GLASGOW ACADEMY

Glasgow, Scotland

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Glasgow Academy, Glasgow (0141) 340000

Science

Hertsfordshire

DERBY HIGH SCHOOL FOR BOYS

Derby, Derbyshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Derby High School for Boys, Derby, Derbyshire (0332) 514267

RUGBY

RUGBY SCHOOL

Rugby, Warwickshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Rugby School, Rugby, Warwickshire (0583) 640000

SURREY

CROHAM HURST SCHOOL

Croham Hurst, Surrey

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Croham Hurst School, Croham Hurst, Surrey (0438) 514267

Other Assistants

CHESHIRE

THE GRANGE SCHOOL

Grange, Cheshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, The Grange School, Grange, Cheshire (0925) 340000

LONDON

NOTTING HILL & EALING

Notting Hill & Ealing, London

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Notting Hill & Ealing, London (0703) 7708

Cambridge

THE PERSE SCHOOL

Cambridge

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, The Perse School, Cambridge (0223) 340000

Other Assistants

CHESHIRE

THE GRANGE SCHOOL

Grange, Cheshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, The Grange School, Grange, Cheshire (0925) 340000

LONDON

NOTTING HILL & EALING

Notting Hill & Ealing, London

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Notting Hill & Ealing, London (0703) 7708

Rural Science

OXON

BIBDORF SCHOOL

Bibdorp, Oxford

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Bibdorp School, Bibdorp, Oxford (01865) 340000

Other Assistants

GLASGOW ACADEMY

Glasgow, Scotland

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Glasgow Academy, Glasgow (0141) 340000

Science

Hertsfordshire

DERBY HIGH SCHOOL FOR BOYS

Derby, Derbyshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Derby High School for Boys, Derby, Derbyshire (0332) 514267

RUGBY

RUGBY SCHOOL

Rugby, Warwickshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Rugby School, Rugby, Warwickshire (0583) 640000

SURREY

CROHAM HURST SCHOOL

Croham Hurst, Surrey

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Croham Hurst School, Croham Hurst, Surrey (0438) 514267

Other Assistants

CHESHIRE

THE GRANGE SCHOOL

Grange, Cheshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, The Grange School, Grange, Cheshire (0925) 340000

LONDON

NOTTING HILL & EALING

Notting Hill & Ealing, London

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Notting Hill & Ealing, London (0703) 7708

Dorset

CANFORD SCHOOL

Canford, Dorset

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Canford School, Canford, Dorset (01924) 340000

Other Assistants

CHESHIRE

THE GRANGE SCHOOL

Grange, Cheshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, The Grange School, Grange, Cheshire (0925) 340000

LONDON

NOTTING HILL & EALING

Notting Hill & Ealing, London

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Notting Hill & Ealing, London (0703) 7708

Rural Science

OXON

BIBDORF SCHOOL

Bibdorp, Oxford

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Bibdorp School, Bibdorp, Oxford (01865) 340000

Other Assistants

GLASGOW ACADEMY

Glasgow, Scotland

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Glasgow Academy, Glasgow (0141) 340000

Science

Hertsfordshire

DERBY HIGH SCHOOL FOR BOYS

Derby, Derbyshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Derby High School for Boys, Derby, Derbyshire (0332) 514267

RUGBY

RUGBY SCHOOL

Rugby, Warwickshire

Required for September 1984, a full-time, non-teaching House Mistress or House of 40 girls aged 14 - 17 years.

For details, with C.V. and names of two referees, to the Headmaster, Rugby School, Rugby, Warwickshire (0583) 64

ation forms can be obtained from the
al on receipt of a stamped self-
sed envelope and should be returned

**West
Sussex**
COUNTY COUNCIL

Community Education Service
Applications are invited from qualified youth leaders or teachers with relevant experience for the following posts:

MANAGERS

- (1) The Rodings Centre
Salary: J.N.C. for Youth Workers Scale 4(a) £8,646 - £9,714

The Centre has recently been completely and attractively refurbished. It is based in independent premises with its own licensed bar, separate coffee bar, and activity area. It needs an enthusiastic Manager to develop a social programme in the daytime and evening to attract a wide range of community groups in addition to the traditional youth centre age range.

- (2) Epping Youth and Adult Centre
Salary: J.N.C. for Youth Workers Scale 3(c) £8,176 - £9,183

The Centre is ideally situated in the middle of Epping in independent premises whose facilities include a bar, coffee bar, and activity and social rooms. An adjacent secondary school is also used for adult education evening classes. The Centre provides a variety of programmes and acts as a local point for community groups of all ages. An experienced and imaginative Manager is required to maximise the potential of the Centre.

WARDEN

- Waltham Abbey Youth Centre
Salary: J.N.C. for Youth Workers Scale 3 (a) £7,485 - £8,415

The Centre operates in a youth wing at a local comprehensive school, and has the use of school facilities. The population of the town is approximately 15,000 and the Centre acts as the main provider of organised youth and community events.

Each of the above posts also carries an Outer London Fringe allowance of £258 per annum. An annual allowance of £218 for a honours degree or £345 for a pass degree is also payable where applicable.

Application forms and job descriptions are available from the County Education Officer, Community Education Service, Thredneedle House, Market Road, Chesham (telephone: Chesham 267222 ext. 2882). The closing date for applications is Monday, 9 April 1984.

(6595)



Leisure Services/Youth and Community

Full-Time Youth and Community Worker

£8178-£9183 p.a.

We require a qualified and experienced man or woman to manage Eastwood Youth and Community Centre, Mansfield Road, Eastwood, Nottingham which is integral within a comprehensive school complex.

For an informal discussion please contact Gordon Thompson on Nottingham (0602) 24957 or 254561.

Application form and job description available from the Staffing Section, Leisure Services Department, Trent Bridge House, Fox Road, West Bridgford, Nottingham, NG2 6BP. Tel: Nottingham (0602) 842824 ext.381. Closing date 8 April. Please quote ref: 145.

(6593)



Nottinghamshire County Council
County Hall, West Bridgford
Nottingham NG2 7DP

EDUCATION DEPARTMENT

Applications are invited from suitably qualified and experienced persons for the post of

HEAD OF STUBBERTS OUTDOOR PURSUITS CENTRE

£10,593-£11,823 (inclusive of London Weighting) (Soulbury Youth & Community Service, Main range Parts 1-5)

Responsible for the programme and oversight of this 120 acre rural area used extensively by the Boroughs schools and youth service.

Further particulars and application forms are available (s.a.e. please) from the Director of Educational Services, Mercury House, Mercury Gardens, Romford, RM1 3DR (Ref: JG), telephone Romford 66999 ext 276. Closing date: 3rd April, 1984.



Buckinghamshire Education Department

Senior Education Officer (YOUTH AND COMMUNITY)

Principal Officer Range £15,845-£17,463 pa.

This post carries the senior responsibility for the youth, community and adult education service. Applicants should be graduates with teaching experience and experience in educational administration.

Further details and application forms from Chief Education Officer, County Hall, Aylesbury HP20 1UZ, on receipt of s.a.e. (or telephone Aylesbury 6000, Ext. 836). Completed applications to be returned by 9th April 1984.

(6507)

ASSISTANT ORGANISER

"LINK" - INFORMATION AND COUNSELLING SERVICE

Salary JNC 3(1) £8,130pa-£9,060pa inclusive

"Link" is a well established service widely used by young people. It has strong links with referral agencies and a large team of assistants (both paid and voluntary) located unobtrusively in Uxbridge.

We are looking for someone with a youth work background and preferably also counselling training and experience.

Application forms and further particulars available from the Personnel Officer, Civic Centre, High Street, Uxbridge, Middlesex UB8 1UW. Telephone: Uxbridge 50589 (24 hr. ansaphone) quoting reference E28/114XE.

Closing date: 11th April, 1984. Applications from disabled persons will be welcomed.

(6480)



Community Education

Applications are invited from suitably experienced and qualified persons for the following full-time post with the YOUTH SERVICE DAYTIME PROVISION UNIT

Project Leader

JNC4 (5-8) £9,714 - £10,830 plus £645 LW.

The Unit will be an integral part of the Borough's Youth and Community Service, which itself forms part of the Community Education Branch of the Education Department.

The minimum requirements for the post are: a qualification in Youth and Community work which is recognised by both the Joint Negotiating Committee (JNC) and the Department of Education and Science; a sympathetic understanding of social educational needs of young adults, particularly the young unemployed; and an ability to develop, and to assist others in developing, a range of programmes for the purpose. Candidates will be required, in addition, to have at least five years' relevant post-qualification experience, to include a significant amount of time working with young adults in the age group 16-25.

Please quote ref G5872.

Further details and an application form are obtainable from the Senior Education Officer, Community Education, Graydon House, 394 High Road, Leyton, E15 8QE. Informal enquiries ring 01-339 0547. Ext. 27. Neil Hobday, Assistant Youth and Community Officer.

(6588)



KENT COUNTY COUNCIL

Applications are invited from suitably qualified and experienced persons for the post of

Further details and application forms are available from the Director of Educational Services, Mercury House, Mercury Gardens, Romford, RM1 3DR (Ref: JG), telephone Romford 66999 ext 276. Closing date: 3rd April, 1984.

HARINGEY LONDON BOROUGH OF

Progress with Humanity
RE-ADVERTISING
YOUTH & COMMUNITY
MANAGER
42 Turnpike Lane, N4
An experienced worker is needed to fill the position. In addition to 'face-to-face' work, the person appointed will be specifically responsible for the development of a comprehensive information service for young people of public and ethnic background. Evidence of experience in similar conditions is essential. Salary and conditions in accordance with JNC Qualifications. Unqualified workers will be considered and an appropriate scale applied. London weighting 1987. Opportunities for service training are available. Previous applicants need not re-apply. Application forms (SAB) from: Education Officer (Youth & Community), London Borough of Haringey, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

OXFORDSHIRE COUNTY COUNCIL

Community Education Officer (Adult) (Thames)
Applications are invited from suitably qualified people to fill the post of Community Education Officer (Adult) (Thames). The post holder will be responsible for the development of a comprehensive information service for young people of public and ethnic background. Evidence of experience in similar conditions is essential. Salary and conditions in accordance with JNC Qualifications. Unqualified workers will be considered and an appropriate scale applied. London weighting 1987. Opportunities for service training are available. Previous applicants need not re-apply. Application forms (SAB) from: Education Officer (Youth & Community), London Borough of Haringey, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

BOYS' CLUB OF WALES

Require a Full-Time Training Officer. Salary negotiable dependent on age and experience. Further details and application forms from Mr. Alyn Morgan, Boys' Club of Wales, 10, 11

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ADMINISTRATION
General
THE UNIVERSITY OF THE THIRD AGE
A NATIONAL ORGANISER
The National U3A offers a part-time job to travel throughout the country, in order to encourage the foundation of local U3A groups. Their purpose is to involve older people in providing their own educational activities. An older person is preferred for the post but there is no lower age limit. The Organiser will work from his or her home, 300 working days over a 3 year period. Salary £3000 per annum plus expenses.
Further particulars from: Executive Secretary, U3A, 6 & 7, Garden, London SW15 8JY. Closing date for applications: May 1, 1984. (15458) 500000

Senior Administrative Assistant (Development)
Salary Scale £10,242 - £11,052
Applications are invited for this new post in the Buildings and Development Section of the Education Department, based at County Hall, Chichester. The person appointed will work closely with the Assistant Director and Deputy Director of Education on a range of matters concerned with development and buildings. This interesting post will provide a good opportunity for a qualified teacher entering education administration or for a person already in administration to broaden his or her experience. This is a re-employment. Previous applicants will automatically be re-considered and need not re-apply.
Further details and an application form are available from the Director of Education, Staffing Section, County Hall, Chichester, West Sussex PO19 1RP.
Closing date 10th April 1984. (9617)

West Sussex COUNTY COUNCIL
EDUCATION DEPARTMENT
PRINCIPAL OFFICER
£14,352-£15,006 pa
An energetic, competent and well-qualified person is required to assist the Education Officer (General Services) in providing a full logistic support to the Borough's Education Service.
Please quote reference 539ED. Closing date 8th April 1984.
Application forms and further details obtainable from The Personnel Officer, Room A/204, Town Hall Annex, New Broadway, Ealing W5 2BY. Telephone 01-840 1996 (24 hour service).
All salaries are inclusive of London Weighting Allowance. All posts are open to male and female applicants unless otherwise stated. Special consideration will be given to disabled persons whose qualifications and/or experience are relevant to the post for which they apply. (9479)

LONDON BOROUGH OF HAVERING
Education Department
PRINCIPAL CAREERS OFFICER
Grade PO1 (1)
Salary £11,991-£13,365 inclusive
Applications are invited from suitably qualified and experienced persons for the above post.
To be responsible for the management and organisation of the Careers Service in the London Borough of Havering. This key post becomes vacant from 31st July 1984 on the retirement of the present postholder.
Further particulars and application forms obtainable from the Director of Educational Services, Mercury House, Romford RM1 3DR. Tel: STAFFING/JG. Tel: Romford 69999. Ext. 277. Closing date: 15th April 1984.

EDUCATION DEPARTMENT
General Educational Adviser (Mathematics)
Soulbury Scale equivalent to Burnham HT Group 8/9
Salary £14,940-£17,268 pa incl.
Applications are invited for this important and challenging post in the Education Advisory Service. In addition to having pastoral responsibility for at least two groups of primary and/or secondary schools, the person appointed will have particular responsibilities relating to the Local Education Authority's policy on the teaching of mathematics in schools and other education establishments.
In addition to possessing a relevant teaching qualification and having a number of years teaching experience, the successful applicant should be able to demonstrate a detailed knowledge and understanding of his/her specialist fields. Experience of working in a multi-cultural area would be an advantage.
Further details and application forms may be obtained from the Chief Executive, Management Services Division, Town Hall, East Ham, London E6 2RP, or Tel: 01-471 0619 (24 hour answering service). Please quote reference ASG/839. Closing date 6th April 1984. (15458) 500000

GRIDS PROJECT
(Guidelines for Review and Internal Development in Schools)
With the extension of this project into a second phase, which is funded by the Schools Curriculum Development Committee, there is a vacancy for a Project Officer.
Funding provides for one full-time post or two half-time posts. The post(s) can be filled on a secondment basis. Phase two has been funded for two years in the first instance, starting on 1st September 1984, with a possibility of a third year.
Salary range: £12,000-£14,000 pa (plus London Allowance is based in London).
The person(s) appointed should have teaching experience, preferably in secondary schools; experience of educational research would be an advantage.
Application forms and further information are obtainable from:
Ann Stewart, The School Curriculum Development Committee, Newcombe House, 45 Notting Hill Gate, London W11 3JB
The closing date for applications is 11th April 1984. (9481)

BFS
SALES REPRESENTATIVE/ADVISER
Books for Students, the leading paperback supplier to schools and libraries are seeking, due to promotion and internal reorganisation, to appoint three representatives to cover East Anglia, S.E. England, Northern Home Counties and parts of London.
The ideal candidate (male or female) will be in their 20's or 30's, preferably with a teaching or library background. They need to be well organised and motivated. A lively interest in children's books is desirable. We offer a planned training programme, a competitive salary plus a company car.
This vacancy provides an excellent career opportunity within a young progressive company.
Please reply with CV to:
John Vaughan, Sales Manager, Books for Students Ltd
65/67 Berrington Road, Stanham Industrial Estate
Leamington Spa, Warwickshire (9628)

ADMINISTRATIVE OFFICERS
KINGS CROSS UP TO £12,000 P.A.
Additional administrators are needed to meet the continuing growth of demand from the areas of pre-vocational and vocational education.
A proven administrative ability is required together with experience as a trainer or educator. A capacity for attracting particularly in conjunction with foundation courses in pre-vocational education would be an advantage.
For confidential application and further details contact the Personnel Officer, City & Guilds of London Institute, 78 Portland Place, London W1N 4AA or telephone 01-580 3050. (9531)

EAST MIDLAND REGIONAL EXAMINATIONS BOARD
(Certificate of Secondary Education)
SENIOR ASSISTANT SECRETARY
(£12,408-£13,725 p.a.)
The Board is seeking a suitably qualified officer, experienced in administration in the field of examinations or education at a responsible level. The duties include substantial involvement with the examination development work. Assistant removal expenses is available.
Further details and application forms may be obtained by 6 April 1984 are available from The Secretary, East Midlands Regional Examinations Board, Robins Wood House, 10 Wood Road, Aspley, Nottingham NG8 3NR. 0602 296387.

EAST MIDLAND REGIONAL EXAMINATIONS BOARD
(Certificate of Secondary Education)
ASSISTANT SECRETARY
(£10,539-£11,703 p.a.)
Applications are invited from suitably qualified experienced persons for the post of Assistant Secretary to the Board, National Joint Council service apply. Further details and application forms should be returned by 8 April 1984, to the Secretary, East Midlands Regional Examinations Board, Robins Wood House, 10 Wood Road, Aspley, Nottingham, NG8 3NR. 0602 296387.

THE SOUTH-EAST REGIONAL EXAMINATIONS BOARD FOR THE CERTIFICATE OF SECONDARY EDUCATION
ASSISTANT EXAMINATIONS OFFICER
SALARY: NJC Principal Officer Range Points 36-43: £10,539-£13,788 per annum (NJC scales are normally revised annually on 1st July. Any award made on 1st July, 1984 will be automatically applied to the above scale).
The person appointed will form part of a team, which will take responsibility for a group of schools in the South-East. The duties will include supervising the subject panels and overseeing the work and moderation of the subjects concerned, under the direction of the Chief Examiner. The successful candidate should possess administrative and, preferably, teaching experience. Duties will be available to take up duty on 1st September 1984.
Application forms and further particulars may be obtained from the Secretary, The South-East Regional Examinations Board, 2 and 4 Mount Ephraim Road, Royal Wootton Bassett, Wiltshire SN4 6JH. Tel: 01249 81111. To whom completed applications should be sent by 27th April, 1984.

EAST ANGLIAN EXAMINATIONS BOARD
LONDON REGIONAL EXAMINATIONS BOARD
UNIVERSITY OF LONDON UNIVERSITY ENTRANCE AND SCHOOL EXAMINATIONS COUNCIL
Applications are invited for the following CHIEF EXAMINER posts for the 1985 examinations:
TECHNOLOGY (modular)
ELECTRONICS
PHYSICS (Syllabus A)
PHYSICS (Syllabus B, Nuffield style)
HISTORY (Syllabuses A, B and C)
Applicants should be graduates or should hold appropriate qualifications and have at least five years recent teaching experience. Salary will be under £6 with five years recent teaching experience. Salary will be under £6 with five years recent teaching experience.
The Secretary to the Board, East Anglian Examinations Board, The Lodge, Colchester CO3 3PL.
The Secretary to the Board, London Regional Examinations Board, 104 Waterloo Road, London SE1 8TA.
The Secretary to the Board, University of London University Entrance and School Examinations Council, 22 Russell Square, London WC1B 3DN.
Completed application forms for Technology, Electronics and Physics should be sent to the Secretary, East Anglian Examinations Board, The Lodge, Colchester CO3 3PL. Completed application forms for History should be sent to the Secretary, University of London University Entrance and School Examinations Council, 22 Russell Square, London WC1B 3DN. Closing date: 15th April 1984.

SOCIAL SERVICES DEPARTMENT
SOCIAL WORKERS
(4 posts) - IT Centre
1 Post Level III - £8,712-£10,242 pa
3 Posts Level II - £7,850-£9,000 pa
The City of Newcastle upon Tyne is committed to developing a comprehensive approach to the management of delinquency in the community. Following a study of the local Juvenile Justice System, in conjunction with Lancaster University, it was decided to establish an IT Centre for the City. This will provide a range of evening and weekend programmes for young offenders at immediate risk of commitment to care or custody. Premises are currently undergoing conversion, and in post are the Project Director, Deputy Project Director and 3 Social Workers.
These staff will work to the accepted NJC job descriptions for social work posts, within the context of the IT Centre. The successful applicants will be required to demonstrate proven ability or potential to undertake tasks including group and individual work with young offenders, associated court work, case reviews, and inter-agency liaison. Essential to all these will be a commitment to using a team approach to working with young offenders on a highly intensive basis. The worker appointed at Level III will, in addition, be required to co-ordinate specific programmes for young offenders. The Fieldwork Section, in which this project is based, is committed to a fully-qualified social work establishment. In the context of the IT Centre, accepted qualifications will be CQSW, Youth and Community Work Diploma, or Teaching Diploma. Applicants for the Level III post should also have at least 18 months post-qualification experience.
Informal enquiries to Rod Stapley or Liam Cairns - Tel: (0632) 731121. Resettlement expenses available in approved circumstances.
Application forms from and returnable to Director of Social Services, Civic Centre, Newcastle upon Tyne NE1 8PA. Tel: 026520, Ext. 6376, by 8th April 1984. (9477)

City of Newcastle upon Tyne
This is an Equal Opportunities Advertisement
Head of Child Care
£8,430 to £9,363
A suitably qualified and experienced child care officer is required to fill this post at Ingwell School, Moor Row, a mixed residential school for up to 80 pupils, aged 9 to 18 plus, with moderate learning and associated emotional and/or social difficulties.
The Head of Child Care and his/her team of 12 Care staff are responsible, under the Head and Deputy Head, for supervising all aspects of the children's residential life together and for arranging suitable activities during out of school hours.
Further details and application form, returnable by 8th April, from Director of Education, 5 Portland Square, Carlisle. Please enclose s.a.e. when requesting application form. (9478)

Cumbria
Head of Child Care
£8,430 to £9,363
A suitably qualified and experienced child care officer is required to fill this post at Ingwell School, Moor Row, a mixed residential school for up to 80 pupils, aged 9 to 18 plus, with moderate learning and associated emotional and/or social difficulties.
The Head of Child Care and his/her team of 12 Care staff are responsible, under the Head and Deputy Head, for supervising all aspects of the children's residential life together and for arranging suitable activities during out of school hours.
Further details and application form, returnable by 8th April, from Director of Education, 5 Portland Square, Carlisle. Please enclose s.a.e. when requesting application form. (9478)

WEST YORKSHIRE
THE WILLIAM HENRY SMITH SCHOOL
We require Residential Child Care Officers at this school. These will have educational qualifications and be able to provide a secure base for the children to develop their own personalities. There are a wide range of activities available to staff both in and outside the school. An interest in sports, music and drama would be an advantage.
The school is ideally situated for the town of Leeds and the city of Bradford and the surrounding areas. It offers a wide variety of facilities and a comfortable environment. Half an hour by car takes you to the motorway and the city centre.
In the local area there is a great variety of housing of reasonable prices.
Further details and application forms may be obtained from the Headmaster, The William Henry Smith School, 104 Waterloo Road, Leeds LS1 8TA. Tel: 0113 271111. To whom completed applications should be sent by 27th April, 1984.

HERTFORDSHIRE
ST GEORGE'S SCHOOL
We require a Residential Child Care Officer at this school. This will have educational qualifications and be able to provide a secure base for the children to develop their own personalities. There are a wide range of activities available to staff both in and outside the school. An interest in sports, music and drama would be an advantage.
The school is ideally situated for the town of Hertford and the city of London. It offers a wide variety of facilities and a comfortable environment. Half an hour by car takes you to the motorway and the city centre.
In the local area there is a great variety of housing of reasonable prices.
Further details and application forms may be obtained from the Headmaster, St George's School, 104 Waterloo Road, Hertford SG11 1JH. Tel: 0462 51111. To whom completed applications should be sent by 27th April, 1984.

THE ASSOCIATED EXAMINING BOARD
The Board invites applications for the following posts for the 1985 examinations:
1. ASSISTANT EXAMINER for PHYSICS (653) at ADVANCED LEVEL.
2. ASSISTANT EXAMINER for CHEMISTRY (653) at ADVANCED LEVEL.
3. ASSISTANT EXAMINER for BIOLOGY (653) at ADVANCED LEVEL.
4. ASSISTANT EXAMINER for MATHEMATICS (653) at ADVANCED LEVEL.
5. ASSISTANT EXAMINER for HISTORY (653) at ADVANCED LEVEL.
6. ASSISTANT EXAMINER for GEOGRAPHY (653) at ADVANCED LEVEL.
7. ASSISTANT EXAMINER for ECONOMICS (653) at ADVANCED LEVEL.
8. ASSISTANT EXAMINER for POLITICAL SCIENCE (653) at ADVANCED LEVEL.
9. ASSISTANT EXAMINER for LITERATURE IN ENGLISH (653) at ADVANCED LEVEL.
10. ASSISTANT EXAMINER for LITERATURE IN FOREIGN LANGUAGES (653) at ADVANCED LEVEL.
11. ASSISTANT EXAMINER for CLASSICS (653) at ADVANCED LEVEL.
12. ASSISTANT EXAMINER for MODERN LANGUAGES (653) at ADVANCED LEVEL.
13. ASSISTANT EXAMINER for ARTS (653) at ADVANCED LEVEL.
14. ASSISTANT EXAMINER for MUSIC (653) at ADVANCED LEVEL.
15. ASSISTANT EXAMINER for PE (653) at ADVANCED LEVEL.
16. ASSISTANT EXAMINER for SPORTS (653) at ADVANCED LEVEL.
17. ASSISTANT EXAMINER for HEALTH EDUCATION (653) at ADVANCED LEVEL.
18. ASSISTANT EXAMINER for RELIGIOUS STUDIES (653) at ADVANCED LEVEL.
19. ASSISTANT EXAMINER for CIVIL SERVICE (653) at ADVANCED LEVEL.
20. ASSISTANT EXAMINER for BUSINESS STUDIES (653) at ADVANCED LEVEL.
21. ASSISTANT EXAMINER for ACCOUNTING (653) at ADVANCED LEVEL.
22. ASSISTANT EXAMINER for FINANCE (653) at ADVANCED LEVEL.
23. ASSISTANT EXAMINER for MARKETING (653) at ADVANCED LEVEL.
24. ASSISTANT EXAMINER for MANAGEMENT STUDIES (653) at ADVANCED LEVEL.
25. ASSISTANT EXAMINER for OPERATIONS MANAGEMENT (653) at ADVANCED LEVEL.
26. ASSISTANT EXAMINER for PROJECT MANAGEMENT (653) at ADVANCED LEVEL.
27. ASSISTANT EXAMINER for QUALITY MANAGEMENT (653) at ADVANCED LEVEL.
28. ASSISTANT EXAMINER for SUPPLY MANAGEMENT (653) at ADVANCED LEVEL.
29. ASSISTANT EXAMINER for TRANSPORT MANAGEMENT (653) at ADVANCED LEVEL.
30. ASSISTANT EXAMINER for TOURISM MANAGEMENT (653) at ADVANCED LEVEL.
31. ASSISTANT EXAMINER for TRADING STANDARDS (653) at ADVANCED LEVEL.
32. ASSISTANT EXAMINER for VETERINARY SCIENCE (653) at ADVANCED LEVEL.
33. ASSISTANT EXAMINER for VETERINARY MEDICINE (653) at ADVANCED LEVEL.
34. ASSISTANT EXAMINER for VETERINARY SURGERY (653) at ADVANCED LEVEL.
35. ASSISTANT EXAMINER for VETERINARY ANATOMY (653) at ADVANCED LEVEL.
36. ASSISTANT EXAMINER for VETERINARY PHYSIOLOGY (653) at ADVANCED LEVEL.
37. ASSISTANT EXAMINER for VETERINARY PHARMACOLOGY (653) at ADVANCED LEVEL.
38. ASSISTANT EXAMINER for VETERINARY MICROBIOLOGY (653) at ADVANCED LEVEL.
39. ASSISTANT EXAMINER for VETERINARY IMMUNOLOGY (653) at ADVANCED LEVEL.
40. ASSISTANT EXAMINER for VETERINARY PATHOLOGY (653) at ADVANCED LEVEL.
41. ASSISTANT EXAMINER for VETERINARY RADIOLOGY (653) at ADVANCED LEVEL.
42. ASSISTANT EXAMINER for VETERINARY LABORATORY MEDICINE (653) at ADVANCED LEVEL.
43. ASSISTANT EXAMINER for VETERINARY CLINICAL PATHOLOGY (653) at ADVANCED LEVEL.
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